

# STEVENSON AND HOWELL

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SOCIETY  
&c. &c.

MANUFACTURING CHEMISTS  
DISTILLERS  
AND IMPORTERS OF

ESSENTIAL OILS  
OF  
GUARANTEED PURITY

SOLUBLE ESSENCES  
PURE CONCENTRATED

FRUIT-ESSENCES

PURE COLOURINGS

OF EVERY DESCRIPTION

ANALYTICAL AND CONSULTING CHEMISTS

STANDARD WORKS,

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AND 128, HOPE ST., GLASGOW.

SELECTED  
OIL OF LEMON  
GUARANTEED  
ABSOLUTELY PURE

SOLUBLE ESSENCE  
OF  
LEMON.

SWEET ORANGE

BELFAST GINGER ALE

TANGERINE

FRUIT

CHAMPAGNES.

&c. &c.

AMERICAN  
FOAM SYRUP,

FOR GIVING A CLOSE  
CREAMY HEAD TO  
ALL BEVERAGES

ALL MATERIALS  
REQUIRED BY  
CONFECTIONERS

BISCUIT MAKERS

WHOLESALE

TOBACCONISTS.

SOAP MAKERS.

PERFUMERS.

&c. &c.

EXTRA QUALITY  
SOLUBLE ESSENCE  
OF  
JAMAICA  
GINGER

A PERFECT  
GINGER ESSENCE  
See The Lancet, July 3rd 1886

HIGHLY  
CONCENTRATED  
FRUIT  
ESSENCES.

HARMLESS  
VEGETABLE  
COLOURS

FREE FROM ANILINES

SOLUBLE  
CONCENTRATED  
COLOURINGS  
FOR ALL LIQUIDS.

ALL MATERIALS  
REQUIRED BY  
MINERAL WATER  
MAKERS.

CORDIAL MAKERS,  
RECTIFIERS & DISTILLERS

BREWERS. &c.



# CHASSAING & CO.

## PRICE LIST OF PEPSINES $\frac{c}{c}$ PEPTONES $\frac{c}{c}$ PANCREATINES $\frac{c}{c}$



### LATEST AWARDS.

CALCUTTA, 1883.—1st Class Certificate and Gold Medal.  
LIVERPOOL, 1886.—H.C., Member of Jury.  
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PARIS UNIVERSAL EXHIBITION, 1889.—Gold Medal.

We would draw the attention of Chemists and Druggists to the fact, that a good Pepsine must not only dissolve, but digest, i.e., Peptonise. Our Pepsines answer entirely to the requirements of the French Pharmacopœia, which requires from a Pepsine the complete PEPTONISATION of the albuminous substance (fibrin).

### OUR PRODUCTS $\frac{c}{c}$ ARE QUOTED AS FOLLOWS:

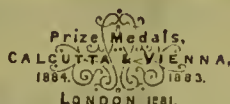
Pure Extract—Pepsine, $\frac{c}{c}$			
French Pharmacopœia, standard 50	...	...	26/6 per lb. net.
Pure Extract—Pepsine, $\frac{c}{c}$	30	...	13/6 "
Amylaceous Pepsine, $\frac{c}{c}$			
French Pharmacopœia	20	...	11/ "
Amylaceous Pepsine, $\frac{c}{c}$	6	...	4/9 "
Pure Pepsine in Scales, $\frac{c}{c}$	100	...	49/5 "
Pure Pepsine in Scales, $\frac{c}{c}$	30	...	17/ "
Pepsine Powder, Solub $\frac{c}{c}$	30	...	12/ "
Granul. Pure Pepsine, $\frac{c}{c}$	30	...	13/6 "
Liquid Pepsine $\frac{c}{c}$	25	...	123 per gall. net.
Pure Pancreatine $\frac{c}{c}$	20	...	16/9 per lb.
Dry Beef Peptone $\frac{c}{c}$	—	...	12/ "

For the above Products, UNSTAMPED, an extra discount of 5 per cent. on the net prices is allowed.

Quality and Standards warranted. Pepsine of all Standards manufactured. Prices according to Standards. Orders amounting to £10 or more delivered free of charges and packing at London. For very important contracts special prices will be quoted.

## CHASSAING & CO., 6 Avenue Victoria, PARIS.

C. & Co. will have pleasure in giving prompt attention to all applications for Samples. These will be forwarded free by post on application.

Telephone No. 2477.Telegraphic Address:  
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21 MINCING LANE,



LONDON, E.C.

AND *North London Chemical Works, HOLLOWAY, N.*MANUFACTURERS OF PURE PHARMACEUTICAL CHEMICALS.SPECIAL QUOTATIONS FOR THE FOLLOWING:

Acid Carbolic Cryst.  
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 Beechwood Creosote.  
 Drugs at Market Rates.  
 Ether for Ice Factories.  
 Ether Nitros. Sol. 1 to 7.  
 Extracts (in vacuo).  
 Ferri et Quiniae Citras P.B.  
 Iodine Resublimed,  
 Liq. Ammonia, '880.

Morphia and Codeia.  
 Ol. Amygd Essent.  
 „ Limonis (new).  
 „ Morrhuæ „  
 Pepsina Porci, etc.  
 Phosphorus.  
 Potass. Cyanid.  
 Quinine Sulph.  
 Sp. Æther. Nit. P.B.  
 „ Ammon. Aromat. P.B.

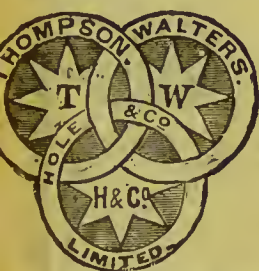
English Tinctures, etc., in Bond



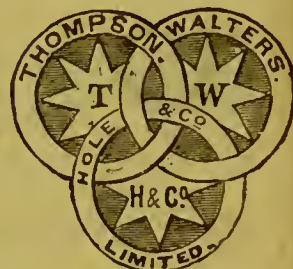
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**NOW READY.**

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**CATALOGUE**



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**DRUGGISTS' SUNDRIES,**

Surgical Instruments,

**CHEMISTS' SHOW CASES AND SHOP FITTINGS,**

PERFUMERY, TOILET REQUISITES,

**Patent Medicines & Proprietary Articles**

MAILED FREE ON APPLICATION TO ANY PART OF THE WORLD.

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**CURTAIN ROAD, LONDON, E.C.**

Telegraphic Address—  
"BEATROP LONDON."

Telegraphic Address—  
"BEATROP LONDON."

[See following pages.



# The Chemist and Druggist

## SUPPLEMENT

Businesses Wanted.  
Businesses for Disposal.  
Premises to Let.  
Auction Sales.

SATURDAY, MARCH 22, 1890.

Partnerships.  
Situations Vacant.  
Situations Wanted.  
Miscellaneous.

### CHEMISTS' TRANSFERS.

**MESSRS. ORRIDGE & CO., 32 LUDGATE HILL, E.C.**

**CHEMISTS' TRANSFER AGENTS,**

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

The business conducted by Messrs. ORRIDGE & Co. has been known as a Transfer Agency since the year 1848, and is well known to all the leading firms in the trade. VENDORS have the advantage of obtaining an opinion on value derived from extensive experience, and are in most cases enabled to avoid an infinity of trouble by making a selection from a list of applicants for purchase, with the view of submitting confidential particulars to those alone who are most likely to possess business qualifications and adequate means for investment. PURCHASERS who desire early information regarding eligible opportunities for entering business will greatly facilitate their object by describing clearly the class of connection they wish to obtain.

1.—£1,000.—LONDON.—Good central position: Retail and Dispensing Business of good class; returns under management £1,000 yearly, capable of being much increased; handsomely-fitted shop and good stock; vendor having other engagements will accept the first reasonable offer.

2.—£400.—LONDON, N.W.—Very large handsome shop, with good stock; situate in a good rising locality; returns at the rate of £400 yearly under an assistant; vendor will accept less than the value of stock and fixtures.

3.—£800.—LONDON.—Central position: good-class Retail and Dispensing, returns £800 yearly; gross profits over 50 per cent.; handsomely fitted shop and good stock; about £800 required, or offer considered.

4.—£500.—KENT.—Death vacancy; large town; middle-class Retail and Dispensing Business; returns about £500 yearly, very profitable; good sized house, with private entrance; equitable terms may be made by immediate purchaser.

5.—£700.—HOME COUNTY.—Retail and Dispensing of good class; situate in attractive locality; returns last year nearly £700, with good profits; large shop, well stocked; convenient house, &c.; about £625 required.

6.—£2,000.—OXFORDSHIRE.—Mixed Business; returns about £2,000 yearly; business capable of being much increased; well-fitted shop and good stock; about £1,000 required.

7.—£1,100.—SURREY.—Attractive locality; good-class Business, with two profitable appointments attached; returns £1,100, with good profits; large house and good garden; moderate rental; about £800 required.

8.—£1,000.—NORTH OF IRELAND.—Good-class Retail and Dispensing Business, situate in a thickly populated locality; no opposition within half a mile; returns last year £1,000 under an assistant; net profits £450; handsome shop and good stock; about £800 required.

9.—£1,100.—PARTNERSHIP (Midland County).—A vacancy occurs in a first-class General Business for a Partner prepared to invest £1,100; references required.

10.—£1,700.—KENT.—Good market town: very old-established, Retail and Dispensing, with small Wholesale attached; returns last year nearly £1,700 with good profits; large handsome premises; business can be much increased; full particulars on application, with reference.

11.—£250.—KENT.—Near town; small increasing Business, Retail and Prescribing; returns under management £35 per month; can be much increased; large and convenient house; about £250 required, or reasonable offer accepted.

12.—£450.—SURREY.—Unopposed country Business of good class; returns about £450 yearly, can be much increased; newly-fitted shop and good stock; convenient house and garden; price about £350.

13.—£400.—BIRMINGHAM.—Good-class Business, in a suburban district; returns £400 yearly; well-fitted shop with good stock; good house, held on lease; full investigation permitted; price to be arranged equitably.

14.—£700.—WESTERN TOWN (Population 70,000).—Main and Branch Businesses, returning about £700 yearly; easily worked and admitting of extension; particulars on application; price about £455.

Particulars of any of the above will be furnished on application.

**N.B.—NO CHARGE TO PURCHASERS.**

Other Businesses, Town and Country; particulars free on application. Personal applicants receive Messrs. O. & Co.'s direct attention and advice, where required, free.

TERMS FOR VALUATION ON APPLICATION. APPOINTMENTS BY POST OR WIRE HAVE IMMEDIATE ATTENTION.

Messrs. ORRIDGE & Co. invite communications from COLONIAL and FOREIGN firms where business of a confidential nature requires the especial attention of a London agent.

### SPECIAL NOTICE.—TO PRINCIPALS AND ASSISTANTS.

**MESSRS. ORRIDGE & Co. Register Vacancies for Situations FREE OF CHARGE.**

**ORRIDGE & CO., 32 Ludgate Hill, LONDON, E.C.**

### FOR SALE.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

**TO Chemists and Dentists.**—Wanted, offers for Set of 16 Tooth Instruments, almost new—Root Extractors, Key, &c., complete—in red leather case (by Maw, Wood, and others). "Proprietor," 1 Bradford Street, Shrewsbury.

**FOR SALE**—Two 10-gall. earboys and stands, 40s.; 2 1/2-gall. do. do., cut stoppers, 32s.; bent-front tooth-brush case, second-hand, 23s.; upright mahogany show-case, 42 in. long, 45s.; mahogany wall-case, 5 ft. long, 3 ft. high, 60s.; now 12-foot range polished pine drawers, stained mahogany, gold labels and glass knobs, 6l. 12s.; ditto mahogany, with bevelled plate-glass labels, 10l.; dispensing-screen, 6 ft. mirror centre and marble slab, 5l. 10s.; 24 3-lb. bine shop-jars, gold-labelled, 48s.; 180 shop-rodz jars, &c., gold-labelled, 9l. B. Tomlinson & Sons, Medical Fitters, &c., Bond Street, Birmingham.

### TO LET.

**MILL** to be Let; suitable for Drug or Paint Grinding, or any like purpose; very centrally situated; terms moderate. Apply, H., 1 The Croft, Barret.

**GRAY'S INN ROAD** (close to Holborn, opposite tram terminus).—Shop and Dwelling: House to be Let; rent £180; splendid position for Chemist. Apply to Mr. A. J. Hollington, Aldgate, E.

**TO LET**, a newly-built House, in one of the main thoroughfares of Maidstone, Kent, suitable for a chemist; no other in the same street. John Goodbody, "Dog and Gun," Boxley Road, Maidstone.

**SHOP** to be Let; commanding position in the best part of Holborn suitable for a Wholesale house, and any business requiring good window space. Also a capital First Floor, very light and lofty; good entrance; suitable for Chemist's or Patent Medicine Agent's. Apply, Drew & Cadman, 245 High Holborn.



# F. J. BRETT,

VALUER, LEICESTER,  
60 St. Stephen's Road.

References to principal London and Provincial Wholesale Houses, also to numerous clients throughout the United Kingdom.

## BUSINESSES THOROUGHLY INVESTIGATED FOR BUYERS. 20 YEARS' EXPERIENCE.

**LANCASHIRE.**—Returns £1,600 to £1,700; large town; General Retail; good Prescribing and fair Dispensing; price about £850.

**KENT.**—Light Retail, Dispensing, and Prescribing, with good Specialties; returns £850; good house; low rent; price £800.

**LINCOLNSHIRE.**—Light Retail and Prescribing, with Wines, Spirits, &c.; returning about £1,500; price about £800.

**YORKSHIRE.**—Returns £550 under personal attention were £1,000; good position; population 30,000; valuation about £400.

**BIRMINGHAM.**—Retail, Prescribing, and Dispensing; rent low; returns over £800; price about £550.

**SUSSEX.**—Dispensing and Light Retail at full prices, at pleasant seaside town; returns £500; price £450.

**MIDLANDS.**—Unopposed Light Retail and Prescribing; returns £320; can be doubled; fully built net profit; large population; no chemist for four miles; large and productive garden; nominal rent; price £270.

# MESSRS. BERDOE & CO.

CHEMISTS' TRANSFER AGENTS & VALUERS,  
30 JEWRY STREET, ALDGATE, E.C.  
Established 1870.

**VENDORS** will find our Offices a quick medium for the Sale of genuine Businesses. Strict confidence; guaranteed. Several good-class Businesses wanted returning £700 to £1,500. Town or country.

**PURCHASERS** are invited to apply (stating their requirements) for particulars of businesses, sent free on application.

## NO CHARGE TO PURCHASERS.

**IRELAND (Belfast).**—Good-class old-established Retail, Dispensing and Prescribing Business; best position in town; modern management returning £1,000, principal would double; elegantly fitted and heavily stocked; net rent £35; net profits £400; price £900 or reasonable offer; sound investment, well recommended.

**KENT (near Town).**—Light Retail and Dispensing Business, returning nearly £850, showing good profits; convenient house; satisfactory reasons for selling; price £700; worth special attention.

**SUSSEX.**—Young man required as Partner in an old-established Business, with view to succession; an investment of £300 to £350; same hands 26 years; unusual opportunity.

**PLYMOUTH.**—Same hands 20 years; owner retiring; returns £800; net profit £300; large corner shop; good position; long introduction; price £500; very cheap and thoroughly sound and reliable.

**SURREY (Banks of the Thames).**—Genuine Retail and Dispensing Business returning £1,100; net profits £400, after paying all expenses; price £800 or offer.

**SOMERSET.**—Good market town; Light Retail Dispensing and Prescribing trade; returns £2,500, with a net profit of £550; same hands many years; price £1,400.

**LONDON, S.E.**—Same hands 15 years; returns under indifferent management £700; should do £1,000; low rent, good house and garden; price £450 to immediate cash purchaser.

**LONDON.**—Several genuine small Businesses, returning £300 to £500; prices £100 to £300; particulars on application.

**MESSRS. BERDOE & CO.** have several clients, with cash ready, seeking genuine Businesses, returning £1,000 to £3,000. Vendors having such to offer should communicate with us. Sales effected quickly and privately.

*Terms for Sale and Valuation on application.*

Messrs. Berdoe & Co., 30 Jewry St., Aldgate, London, E.C.

## BUSINESSES FOR DISPOSAL.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

**ASHBY-DE-LA-ZOUCH.**—For immediate disposal, a good Family Business; satisfactory reasons given for disposal; price, one year's returns. For further particulars, apply R. M. Stewart, 47 Market Street.

**SURREY** (Redhill, 20 miles from London).—A good opportunity presents itself for working up a first-class connection in this rising locality; rent £50; the shop has been let to chemist for the last 9 years. Address, A., "Mirror" Office, Redhill, Surrey.

**£275** for a genuine old-established Business in Surrey, doing £500 cash; owner having the offer of his old business in the country, will dispose of this much below its value to an immediate cash buyer; every information by letter. "Chemists," 52 Rodwell Road, East Dulwich, S.E.

**SCOTLAND (North),** country town: returns over £850; good dispensing and prescribing; full prices; one able to extract teeth could add considerably to profits; immediate entry can be had if desired; about £320 required. Address, "Shylock," care of Hattrick & Co., Chemists, Renfield Street, Glasgow.

# Mr. G. B. CROCKER,

Trade Valuer, Transfer Agent, & Accountant,  
15 WALBROOK, E.C.

**DEVONSHIRE.**—An old-established Retail and Dispensing Trade; returns £800; price £500; many years same hands; owner retiring.

**MIDLANDS.**—Country Retail and Dispensing trade, with Stationery; returns £500; valuation will be accepted.

**NORTH OF ENGLAND.**—Old-established Prescribing trade in centre of busy town; returns about £1,000; about £700 required to purchase; death of proprietor cause of sale; low rent; very long lease.

**SOUTH OF ENGLAND.**—Retail and Dispensing; returns £850; price £750; plenty of scope for a pushing man.

**WEST OF ENGLAND.**—Family and Dispensing trade; very profitable; returns £450; rent £35; price £225; worth attention.

**LONDON, S.E.**—Family and Dispensing trade in pleasant suburb; returns £7 weekly, and increasing; good residence; low rent.

**LONDON, N.**—Retail and Prescribing trade in thickly populated district; returns £9 weekly; price £370.

**LONDON, W.**—Family and Dispensing trade; returns £800; net profit £300; price £650; worth attention.

Valuations for Probate or Transfer conducted in any part of the United Kingdom. Terms on application.

## BUSINESSES FOR DISPOSAL—Continued.

**NEAR** Chester; in good neighborhood; no opposition; a business very prettily situated; would suit a Chemist with means, wishing for occupation and short hours. Apply "Nemo," Ayrton & Saunders, Duke Street, Liverpool.

**£450** (over £500 returns).—A genuine, old-established Retail, Prescribing, and Dispensing Business in Kent; 20 miles from London; profits good; rent £35, on lease; price £450. Address, A. B. C., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**GENUINE** old-established Chemist's for disposal (country), all Light Retail, and ready-money trade; well fitted and stocked. For full particulars, apply A. J. N., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**TO** Chemists and Druggists.—For sale, in consequence of the death of the proprietor, an old-established Business in one of the leading thoroughfares of Maidstone, near railway-station. First-rate shop, with dwelling-house. Apply to Day & Sons, Valuers, &c., 23 High Street, Maidstone.

**FOR** Disposal (Midlands), Chemist's Business in large town; busy thoroughfare; well fitted, good stock; prescribing and mixed retail; no hooking; rent and rates low; profits good; good opening for dentistry; price £200. Apply, "Iodine," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**PLYMOUTH.**—Most desirable position; old-established good-class Retail and Dispensing Business, returns over £600; large profits; handsomely-fitted double-fronted shop; good stock; price £500 or offer. For full particulars, write A. B., care of Messrs. Barron, Harvey & Co., Giltspur Street, London.

**AN** old-established Chemist's and Druggist's Business for disposal; death of proprietor sole reason for sale; stock and fixtures at a valuation; handsome plate-glass, double front, and large shop; rent low; agricultural neighbourhood; good opening for a pushing man. Exors. of the late J. H. Elmhut, 17 Bull Ring, Horncastle.

**GOOD** Market and Manufacturing Town in West of England.—Old-established Business in best part of town for sale; in present hands is rapidly increasing, proprietor taking larger business; present returns £8 or £9 weekly; price £320 cash, or valuation. Further particulars, apply, J. Bate, 12 Werburgh Street, Chester.

**£550.**—Twenty miles out, in a small town, Dispensing, Prescribing, and Retail Business, with Stationery; quite unopposed; same hands a quarter of a century; pretty district; returns £850; convenient house, good stables, garden, and greenhouse; rent £30. "Norman," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**VILLAGE BUSINESS** in Gloucestershire, returning over £700 per annum; rent £28; own property; will sell or grant lease; modern 9 roomed house; price to an immediate purchaser £375; unusual opportunity, simply value of stock and fixtures; full particulars sent on application. "Severn," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**LEEDS.**—For Immediate Disposal, a Retail and Dispensing Business in Briggate, Leeds; established over 50 years by present proprietor, who is retiring; the business can easily be greatly increased; no valuation except for stock, which is very good, or the proprietor would accept reasonable offer; inspection is invited. Apply to Mr. Charles Hay, 106 Briggate, Leeds.

**SURREY.**—At once, to take larger Business; Dispensing and Prescribing; same hands over 7 years; beautiful, improving neighbourhood and open situation, with good house, side entrance, garden, and back entrance; rent and taxes low; returns £1,200, including small Giltbey's Agency, and no trouble; also Post-office, worked entirely by clerk; price £800. Apply, Francis, care of C. Martin, 11 Aldersgate Street, E.C.

**OLD-ESTABLISHED** Drug and Grocery Business, in principal street in Darlington, with large double-fronted shop, well-fitted and commodious house; carried on successfully 25 years by the late J. O. Thompson. Chemist and Grocer; a profitable trade done in each department; satisfactory reasons for disposal; splendid opening for qualified Chemist. For particulars, apply to Mr. Thompson, 12 Blackwellgate, Darlington.



**WARWICKSHIRE.**—For immediate sale, a very old-established Retail, Dispensing, and Prescribing trade; same hands 25 years; returns £650, and is increasing; very low rent; most convenient house, elegantly fitted and well-stocked shop; price £500, or valuation. "Statim," 46 St. James Grove, Peckham Rye, London.

**LONDON, S.E.**—Owing to illness of proprietor, a very old-established Retail and Prescribing Business for sale, in an attractive neighbourhood, with growing Dental practice attached; good private house, with small garden; returns about £900, large profits; price £800. Address, B., care of Messrs. Newbery & Sons, 1 King Edward Street, Newgate Street, London, E.C.

**STRATFORD.**—Immediate sale, owing to death of proprietor; Dispensing, Prescribing, and light Retail trade, with opening for Dentistry; well situated; corner shop with good house, side entrance; purchaser to take stock, fixtures, and about 13 years' unexpired lease; rent £30; energetic man could largely increase business; price, all in, £350. Apply, H., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.O.

## BUSINESS WANTED.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

**WANTED** by a Surgeon, a small Chemist's shop where there would be an opportunity of establishing a practice. Address "Surgeon," 2 Park Street, Islington, N.

## SITUATIONS OPEN.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

**JUNIOR** or Improver for Dispensing Counter. Apply, stating age, height, salary, and experience, to Thompson, Pharmaceutical Chemist, Putney, S.W.

**IMMEDIATELY**, qualified single Manager for high-class Dispensing Branch business; personal application. Parkes & Co., 196 Belsize Road, Kilburn.

**WANTED**, at once, a qualified Assistant; good references; salary £40, indoors; comfortable home. Apply, 56 Arlington Road, Brixton, S.W.

**AN** Improver or Junior; one accustomed to Homœopathic Dispensing preferred. Apply, stating age, height, salary, &c., Tirrell, Homœopathic Chemist, Hanley.

**JUNIOR** or Improver in a Select Retail and Dispensing Business. Full particulars, enclosing photo, to Frederick James Lea, The Folkestone Pharmacy, Folkestone.

**WANTED**, Assistant as Manager; must be thoroughly reliable. State age, height, and salary, enclose photo (will return), to Coleman, Chemist, Wolverhampton.

**AT** once, Junior Assistant, principally for Stock work; hours extremely light; outdoors. Apply, giving age, salary required, and references, to Nuthall & Mason, Bank Plain, Norwich.

**WANTED**, an energetic Junior Assistant; time allowed for study, and easy hours; one used to country business preferred. Apply, enclosing photo, to J. B. Harris, South Molton.

**WANTED**, good Junior Assistant for the retail; senior kept; outdoor; give references, age, height, &c., in first letter. W. Kemp and Son, Wholesale and Retail Chemists, Horncastle.

**IMMEDIATELY**, a good Junior; age not under 20; must be quick and obliging. Apply, stating salary required, age, height, and references, to W. Jacobs, Medical Hall, Guildford, Surrey.

**WANTED**, a Junior Assistant, about 22 years of age, in a seaside Dispensing and Retail business. Send full particulars, with carte (to be returned), to O. G. Targett, Chemist, Weymouth.

**IMMEDIATELY**, in good-class Mixed Country Retail, an Improver or Junior, desirous of time for study. Apply, with full particulars, to J. H. Williams, Pharmaceutical Chemist, Hayle, Cornwall.

**AN** Assistant for a Light Retail and Dispensing Business; indoors; one only kept. State age, height, when disengaged, and salary required, to Badham & Sloman, 28, 29, 30 Higher Union Street, Torquay.

**TRAVELLER** wanted; one who has an established connection amongst Chemists and Druggists in the United Kingdom. Address, H., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**A WELL-EDUCATED** Youth as Apprentice to the Drug Trade; premium moderate; references given and required. Thomas Turner, Chemist and Admited Water Manufacturer, Loughton, Staffordshire.

**WANTED**, an Assistant, 21 to 23 years of age, with good reference and capable of taking charge in absence of employer; one who can extract teeth preferred. Apply, with photo, if convenient, S. D. Gill, Chemist, West Bromwich.

**CHEMIST'S** Assistant required for India; must have passed Junior; four years' agreement; salary 150 rs. per month for first year, 175 rs. second year, 225 rs. third year, and 250 rs. for fourth year; passage paid. Address, stating qualifications, and enclosing photo and references, to J. O. A., care of Deacon's Advertising Offices, Leadenhall Street, E.C.

**WANTED**, Junior Assistant for drug and patent medicine counter; no knowledge of dispensing necessary; aged about 20; salary £20; to live indoors. Apply before 12 o'clock midday, Bon Marché, Brixton Road.

**WANTED**, immediately, Junior Assistant, about 18; must be active and energetic and of agreeable manners. Send full particulars, salary, photo, and references, to J. & J. Thompson & Co. (Limited), 192 Manchester Street, Oldham.

**JUNIOR** wanted, end of April, for West-end trade. Reply by letter, stating age, experience, salary, and references; enclose photo, which will be returned (outdoor). F. R. & Co., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.O.

**INVOICE** Clerk wanted, for wholesale drug house in London; must be good writer and quick at figures. Apply, stating experience and salary required, to "Gresley," care of Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**WANTED** immediately, in a good-class country business, a Junior Assistant; energetic, with good references, and some 4 or 5 years' experience; outdoor; no Sunday duty. Apply, stating full particulars, to Mr. Nichols, Chemist, Petersfield.

**WANTED**, at once, a qualified Assistant, not under 25 years of age; must be a neat and accurate dispenser, and accustomed to a first-class country business. Apply, enclosing carte and references, to Carlton & Sons, Chemists, Horncastle.

**WANTED**, a young gentleman thinking of entering the medical profession, to Dispense and keep the books; must be thoroughly competent and able to give good references; indoors; small stipend. Messrs. Tomsou & Son, Surgeons, Luton, Beds.

**WANTED**, qualified Assistant, age about 23, for best-class Dispensing business. Apply, stating height, age, salary required, giving references, and enclosing carte, to George E. Perry, Pharmaceutical Chemist, Hagley Road, Edgbaston, Birmingham.

**SMART** Junior, or Improver, for light Retail and Dispensing; plenty of time for study. Full particulars, salary, &c., to avoid unnecessary correspondence, please enclose photo, which will be returned, to "Chemist," 70 Oxtou Road, Birkenhead.

**TO** Students and others.—An old-established Retail Chemist, M.P.S., &c., offers Partial Board and Lodgings in return for occasional services; time for study; comfortable home; one from the country preferred. "Chemicus," 28 Sudbourne Road, Hayter Road, Brixton, S.W.

**ACTIVE** and Energetic Assistant, outdoors, for parcels counter; duties are to put up and despatch all outgoing retail orders; one with knowledge of Mixed or Agricultural trade preferred; state age, height, salary required, and enclose photo. S. Wand, Chemist, Leicester.

**GRIMBLE & KENT**, Wholesale and Retail Chemists, Boston, will require on April 1, a smart, active Assistant (outdoor), for the retail. Applicants are requested to state full particulars as to age, height, and salary required, enclosing references and carte (to be returned).

**WANTED**, a Junior or Improver, aged about 20 years, for a busy retail; time allowed for study; Sunday duties very light; half holiday in middle of week; comfortable home; must be willing to do the routine shop work. W. Smith, Chemist, Spa Road Station, S.E.

**WHOLESALE DRUG TRADE.**—Required an experienced Town Traveller, with a good connection; application from traveller with small sound connection will be entertained. State full particulars to "Sapo," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**VETERINARY** Pupil wanted, in a good mixed practice, with every facility for learning both the practical and theoretical work of the profession; a well-educated youth, son of a chemist preferred; references given and required. H. Leeney, M.R.C.V.S., &c., East Grinstead, Sussex.

**AN** Assistant (indoors) required at end of March; not under 22 years of age; qualified preferred, but must have had experience as a Dispenser in a good-class business, and possess good references. Apply, stating age, salary required, and other particulars, to "Omega," 489 Oxford Street.

**WANTED**, on April 10 next, a Qualified (Minor) Assistant, aged about 24 years, of experience; good dispenser and counterman; with good references; state salary; indoors; comfortable home. Apply by letter, to M. D., 606 Harrow Road, W.; or personally between 6 and 8 P.M.

**IMMEDIATELY.**—A Junior Assistant; a quick and accurate Dispenser, good writer, for first-class Family and Dispensing business; state age, experience, height, salary expected (indoors), and references, also enclose photo, which will be returned. Apply T. O. Taylor, 20 Long Row, Nottingham.

**IMMEDIATELY**, a steady, trustworthy Assistant, good Dispenser and Counterman; must be willing and obliging and of gentlemanly and good personal appearance; extractor preferred. Send carte, and particulars as to age, experience, and salary (indoors), to T. G. Michell, Chemist, St. Anstell, Cornwall.

**WANTED**, young man to take charge of a Chemical Apparatus Department in a wholesale drug house in Canada; must have a thorough knowledge of these goods; references as to character and ability required. Apply, stating past experience and salary expected, to "Chemical Glass," P.O. Drawer 2,050, Montreal, Canada.

**HILL ROYAL INFIRMARY.**—There is an opening in the Dispensing Department of the above Institution for a gentlemanly youth, about 16 years of age, for a term of not less than 3 years; one who has passed the Preliminary examination of the Pharmaceutical Society preferred; an excellent opportunity is afforded of learning Pharmacy and Dispensing under a qualified pharmaceutical chemist; premium £40. For further particulars apply to the undersigned at the hospital. By order, Benjamin Brooks, Secretary.



## SITUATIONS WANTED.

1s. for twelve words; 6d. for every six words beyond.

**JUNIOR**: 21; 3 years' good experience; Northern counties. C. W. L., 95 High Street, Putney.**SOUTH AFRICA** (23); qualified; experienced in all branches. B., 11 Bedford Street, Ipswich.**ASSISTANT**, aged 23 height 5 ft. 10 in.; Extractor. "Chemist," 32 Lomupt Va'e, Lewisham.**ASSISTANT**: aged 23; 7 years' experience; height 5 ft. 11 in.; first-class reference. K. W., 6 East Street, Worcester.**WHOLESALE**.—As Manager at Wet Counter; 15 years' experience; highest references. "Ralph," 51 Myddelton Street, E.C.**WHOLESALE**; 8 years in last situation; well up in all branches; aged 34. "Chemicus," 6 Radcliffe Road, Southampton.**MANAGER** or Assistant; aged 27; married; height 5 ft. 7 in.; Minor. "Chemist," 52 Florence Street, Newcastle, Staffs.**BRANCH Manager** or Assistant; qualified; aged 23; highest references. M. L., Montpellier, Budleigh Salterton, Devon.**OUTDOOR**; middle of April; aged 23; height 5 ft. 7½ in.; 7 years' experience. John, 38 Canwick Road, Lincoln.**LOCUM TENENS**: town or country; disengaged after 29th inst.; aged 36; Minor qualification. "Alpha," 81 Camden Road, N.W.**MINOR** and R. D. S.; highest reference; abstainer; aged 34; permanent or temporary; terms moderate. "Dens," Heanor, Derbyshire.**DISPENSING** required, morning and evening; experienced; £1 weekly. L., care of Mr. Curd, 36 Asbpland Grove, Mure Street, Hackney.**LOCUM** or Permanency; Dispensing, Prescribing, &c., and first class Surgical and Mechanical Dentist. C., 16 Church Street, Greenwich, S.E.**JUNIOR**; in good Retail and Dispensing business; aged 20; 5½ years' experience; Eastern Counties preferred. H., Kirkby Marsh Chapel, Grimsby.**SOUTH AFRICA**; as Manager or Assistant; married; no family; 30. Apply, 35/26, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**WHOLESALE**, Wet Counter; 17 years' practical experience; aged 33, disengaged. "Tenax," 60 Loneroot Road, Cobourgh Road, Camberwell, S.E.**M. S. SMITH**, 6 Shaftesbury Terrace, Ashley Road, Bristol, takes Confidential Management during absence or illness, or Brauch; varied experience.**ASSISTANT** or Manager; aged 26; Minor; permanent; outdoor; speaking German fluently; extract; good photographic knowledge. "Chemist," 2 Carr Lane, Hull.**ASSISTANT**, with fair all-round experience; accustomed to good-class Dispensing and Retail; aged 22; abstainer; good references. "Antipyrin," 6 Edgar Street, Worcester.**JUNIOR** as Traveller, or Part Traveller, in good Mixed Wholesale and Retail business; aged 20; good accountant; first-class references. Shuttleworth, Silver Street, Gainsborough.**OUTDOOR Assistant** or Dispenser to Doctor; Manchester or neighbourhood preferred; good dispenser; highest references; height 6 feet. "Chemicus," 39 Duke Street, Brighton, Manchester.**ASSISTANT**; 25; Dispense, Prescribe, Extract; good all-round knowledge; work no object; time for lectures and study essential; low salary; disengaged. "Excelsior," 91 Crosby Street, Maryport.**AS Assistant** in brisk business; Minor and Hall qualification; aged 24½; first-class Dispenser; 11 years' experience; first-class references; salary 36s. per week; outdoors; in London, Manchester, or Edinburgh. "Minor," 29 Boston Street, Liverpool.**WANTED**, in a first-class Dispensing Business, by the son of a Chemist, who has passed Preliminary, two years behind counter, a situation as Improver; in or near London preferred. "Cascara," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**A PHARMACEUTICAL Chemist** of 16 years' varied experience seeks an engagement as Senior in a good London or Provincial house; aged 30; height 5 ft. 11 in.; excellent references. Address, 33/9, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**WANTED**, Charge of Pharmaceutical Laboratory, or Chemical Manufactory; thorough knowledge of all branches; aged 30 years; qualified; M.P.S.; at liberty at end of month. Particulars (in confidence) to "Rama," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**CHEMIST** wishes to recommend thoroughly reliable and respectable Assistant, aged 22, who has had management of Post Office and general chemists' bookkeeping, and who can give occasional assistance at counter; London preferred. G. B., care of Balss Bros. & Co., Jewry Street, Aldgate, E.C.**ASSISTANT**; good experience; competent; aged 25. F., 11 Chandos Street, Koighley.**SCIENTIFIC Chemist**, F.L.C., F.C.S., experienced in analysis, mechanics, electricity, as well as manufacturing processes, retiring from managership of factory belonging to one of principal firms in kingdom, is open to engagement. "SM," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**IRELAND**.—Wholesale Drug Trade.—A gentleman with a large connection, and well known in the drug business, is open to treat with an All London firm, to represent them in Ireland, either on salary or commission; a large business guaranteed. Address "Drug," care of Eason & Son (Limited), Advertising Agents, Dublin.**A GENTLEMAN** holding the Major diploma, of good business abilities, and of several years' experience, is desirous of an engagement as Traveller, Confidential Clerk, or Manager of small or Surgeon's Wholesale; fair accountant; of good appearance and address, and can command unexceptional references. 933, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**WANTED**.—A youth aged 19 requires situation (indoors) with a Chemist; 4 years' experience; salary not so much an object as a thorough insight into the work. Address, A. N., care of Mr. Higgs, Caxton House, Henley-on-Thames.

## MISCELLANEOUS.

*Special charges are made for Advertisements under this heading, which can be obtained on application.***PERSONS** wishing to Purchase or Sell their Businesses will do well to communicate with Messrs. Fowler & Miller, Chemists' Transfer Agency for the North of England, 60 Fawcett Street, Sunderland.**MR. THOMAS SANDERS**, who was Assistant to a Chemist and Druggist in Manchester in 1882 and previously in Birmingham, will hear of something to his advantage on communicating with Messrs. Coleman & Co., Solicitors, 77 Colmore Row, Birmingham.

## PRELIMINARY AND MINOR.

**ALL Students** who are preparing should send for particulars of a method of study which will enable them to pass with ease. Enclose stamped envelope to Mr. J. Tully (Hills Prizeman), Chemist, Hastings. Established 1872. References to past and present Pupils. Student's Herbarium, 100 specimens, 7s. 6d., post free.

## STUDENTS' AIDS TO EXAMINATION.

**PRELIMINARY**.—Arithmetic and Metric System, 1s. How to Write an Essay, 3d. Caesar Simplified, 1s. Knotty Points in Latin Grammar, 1s. 6d. MINOR.—Equations Simplified, 1s. Illegible Autographic Prescriptions, 1s. Notes on Dispensing, 1s. Prescriptions given at the Minor, 6d. "Chemist," care of Mr. J. Edwards, Wye, Kent.

## GLYCERINE &amp; CUCUMBER,

First Quality, 9d. per lb., by using

Rouse's Concentrated Cucumber Paste.

In Jars (free), ½ lb. 2s. 3d.: 1 lb. 4s. 3d. net.

Making 3 lbs. and 6 lbs., costing 4d. per oz., by simply adding Water and Glycerine.

Thro' any Wholesale House, or post free for P.O.

**ROUSE & CO.**, 12 WIGMORE ST., LONDON, W.

## OUR WEEKLY SUPPLEMENT.

We have prepared a set of forms for small advertisements (assistants wanted, businesses for disposal, exchange column &amp;c.). With these are attached tables of useful reference matter (Sale of Poisons, Postal Information, Annual Licences, Metric Weights, Measures, Medicine Stamps, Law and Public Offices, &amp;c.). We shall be glad to send one of these sets to any subscriber who will send us an addressed postal wrapper (bearing a halfpenny stamp). As the object of this production is to encourage the insertion of such advertisements as we have named in THE CHEMIST AND DRUGGIST, we hope this offer will be taken advantage of chiefly by those subscribers who are willing to use this journal whenever opportunities occur.

**OFFICES: 42 CANNON STREET, LONDON, E.C**

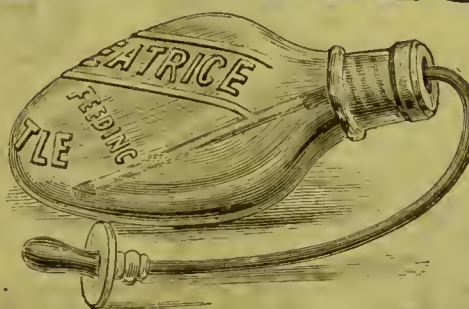


# FEEDING BOTTLES.

## THE "BEATRICE"



The "BEATRICE." Full View.



The "BEATRICE." Side View.

### A UNIVERSAL FAVOURITE.

The "BEATRICE" 1/ Feeding Bottle combines the advantages of the straight and bent neck feeder. Its shape admits of the bottle being laid on either side without the slightest fear of leakage from the stopper, and can be thoroughly cleaned, access to every part of the bottle being easy. It has no corners or crevices, so that it is impossible for the milk to accumulate and become sour.

Cat. No. 621.—White glass, straight neck, screw glass stopper complete, with best black fittings, each in handsome shouldered box in which to stand the bottle while filling ... .. per doz. 7/6

" 622.—Spare bottles, without stoppers ... .. " 2/3

" 623.—Spare Fittings ... .. " 4/3

### The "TROPICAL."



Cat. No. 654.—The "TROPICAL," Thompson, Walters, Hole & Co.'s Patented glass boat-shaped Feeder, with screw glass stopper at end for convenience in cleaning, fitted with black indiarubber teat, and bone shields, each in cardboard box

655

Ditto

ditto

large size, per doz. 8/-  
small " " 7/-

# THE "STANDARD."

CHEAPEST AND MOST SALEABLE IN THE MARKET.



The "Standard." Screw Glass Stopper.

	Per Gross.
644 Green glass, box top corks, white fittings, loose ... ..	23/-
645 Green glass, box top corks, black fittings, loose ... ..	26/-
646 White glass, box top corks, white fittings, loose ... ..	27/-
647 White glass, box top corks, black fittings, loose ... ..	30/-
648 Green glass, screw glass stoppers, white fittings, loose ... ..	33/-
649 Green glass, screw glass stoppers, black fittings, loose ... ..	36/-
650 White glass, screw glass stoppers, white fittings, loose ... ..	39/-
651 White glass, screw glass stoppers, black fittings, loose ... ..	42/-
652 White glass, screw glass stoppers, best quality, white fittings, each in handsome labelled cardboard box, with tube and bottle brushes ... ..	69/-
653 White glass, screw glass stoppers, best quality, black fittings, each in handsome labelled cardboard box, with tube and bottle brushes ... ..	72/-
653A White glass, screw glass stoppers, black fittings, each in handsome labelled cardboard box, with tube and bottle brushes ... ..	66/-



The "Standard." Box Top Cork.

For Orders of two gross and upwards, customers can have own name on "Standard" Bottles, together with any other wording they may wish FREE OF EXTRA COST.

All the above prices are subject to 5 per cent. discount.

SPECIAL QUOTATIONS FOR LARGE QUANTITIES.

# THOMPSON, WALTERS, HOLE & CO., LIMITED,

Telegraphic Address—  
"BEATROP LONDON."

CURTAIN ROAD, LONDON, E.C.

Telegraphic Address—  
"BEATROP LONDON."



# TRUSSES.

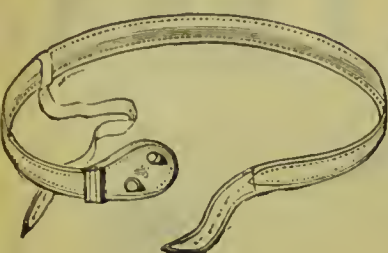
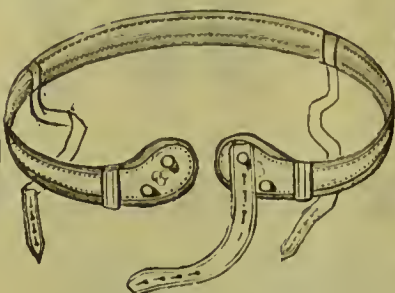
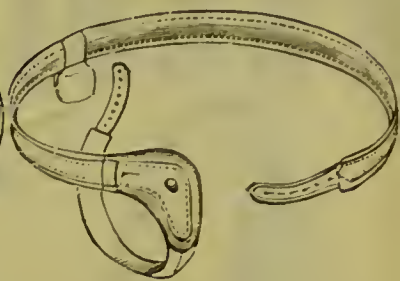


FIG. 1.—Single Circular Truss.

FIG. 2.—Double Circular Truss.  
Single. Double.FIG. 5.—Salmon & Ody's  
Single Truss.FIG. 6.—Truss for Scrotal Hernia.  
Single. Double.

For **INGUINAL HERNIA**, covered Basil and Moleskin, Figs. 1 and 2  
Salmon & Ody's Principle, covered Basil and Moleskin, Fig. 5 (made to order)

.. per doz. 12/6 21/0  
.. " 23/0 45/0

Salmon & Ody's Principle, covered Basil and Moleskin (Circular) .. per doz. 22/0 36/0  
For **SCROTAL HERNIA**, covered Basil, Fig. 6 .. " 36/0 60/0  
(For all other kinds see Catalogue.)

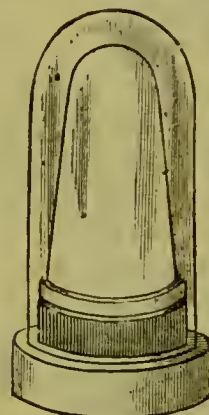
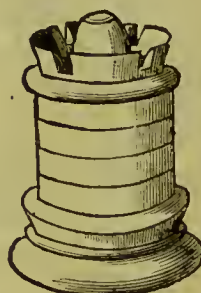
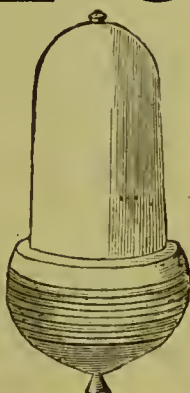
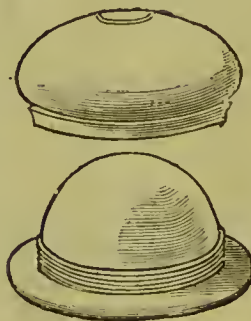
## SPECIAL DISCOUNTS.

5 per cent. on Orders of less than 1 gross; 10 per cent. on Orders of 1 gross and upwards; 12½ per cent. on Orders of 2 gross and upwards.  
All Trusses manufactured by us are of the Best Quality, and we invite trial orders.

# MENTHOL CONES.

(DRAGON

BRAND.)



No. 1.—Boxwood Case, Bullet Shape, on fancy cards containing 1 doz. per doz. 1/9  
.. 2.—Boxwood Case, Pedestal Shape, 1 dozen in cardboard box .. 1/9  
.. 3.—Boxwood Case, Acorn Shape, 1 dozen in cardboard box .. 3/0  
.. 4.—Boxwood Case, Crown Shape, 1 dozen in cardboard box .. 3/3  
.. 5.—Vegetable Ivory, Acorn Shape, 1 dozen in cardboard box .. 3/9  
.. 6.—Vegetable Ivory, Castle Shape, 1 dozen in cardboard box .. 4/0  
.. 7.—Nickel Screw Cap Bottle, small size .. 2/0  
.. 8.—" large size .. 2/3  
.. 9.—Glass Shade, with China Foot, small size .. 2/9

Fig. 6. No. 10.—Glass Shade, with China Foot, largest size cone (as Fig. 9), in glass top box .. per doz. 5/0  
.. 11.—Boxwood, Acorn Shape (as Fig. 5) .. " 5/0  
.. 12.—" on foot (as Fig. 3) .. " 5/0  
.. 13.—" Barrel in glass top box .. " 5/0  
Nos. 10, 11, 12 and 13 can be had in glass top boxes of 1 doz. unsorted .. 7/0  
No. 14.—Polished Wood Case, Pedestal Shape, 1 doz. in cardboard box .. 1/4  
.. 15.—Penny size, in pink cardboard box .. per gross 7/0  
.. 16.—Glass Shade on Bagwood Pedestal .. per doz. 1/6  
Handsome glass top Counter Cases, containing 4 doz. assorted in case each 10/6

On all orders for Menthol amounting to £1 10s. we allow an extra 5 per cent. discount; for orders amounting to £2 10s. we will put Customer's Name on in addition to the extra discount, and present, gratis, a handsome glass top raised stand for showing Menthols.

# PERFUMES.

GUARANTEED OF THE VERY BEST QUALITY,  
AND PUT UP IN ATTRACTIVE STYLE.

A Handsome Show Stand for Perfumes presented with first orders of £5, assorted.  
2d. size, per doz., 1/4, on Fancy Cards containing 2 doz. 6d. size, per doz., 3/10. 1s. size, per doz., 7/3  
2s. 6d. size, in the new registered trefoil bottle, very handsome, per dozen, 19/0.

ESS BOUQUET, JASMINE, WHITE ROSE, JOCKEY CLUB, MOSS ROSE, NEW MOWN HAY, HELIO-  
TROPE, PATCHOULI, STEPHANOTIS, YLANG-YLANG, IMPERIAL, &c., &c.

Cavallier Frères' Extracts, &c., in original ¼, ½, and 1 lb. Bottles, per lb. 9/6; 5-lb. Tins, per lb. 9/0.

# ODORATORS.

For distributing Perfumes, each in cardboard box, per doz., 8/-, 13/8, 16/-, 19/-, 25/-, 30/-, 34/-, & 48/-.

A great variety of Shapes and Patterns kept in stock.

All the above prices are subject to 5 per cent. discount.

# THOMPSON, WALTERS, HOLE & CO., LIMITED,

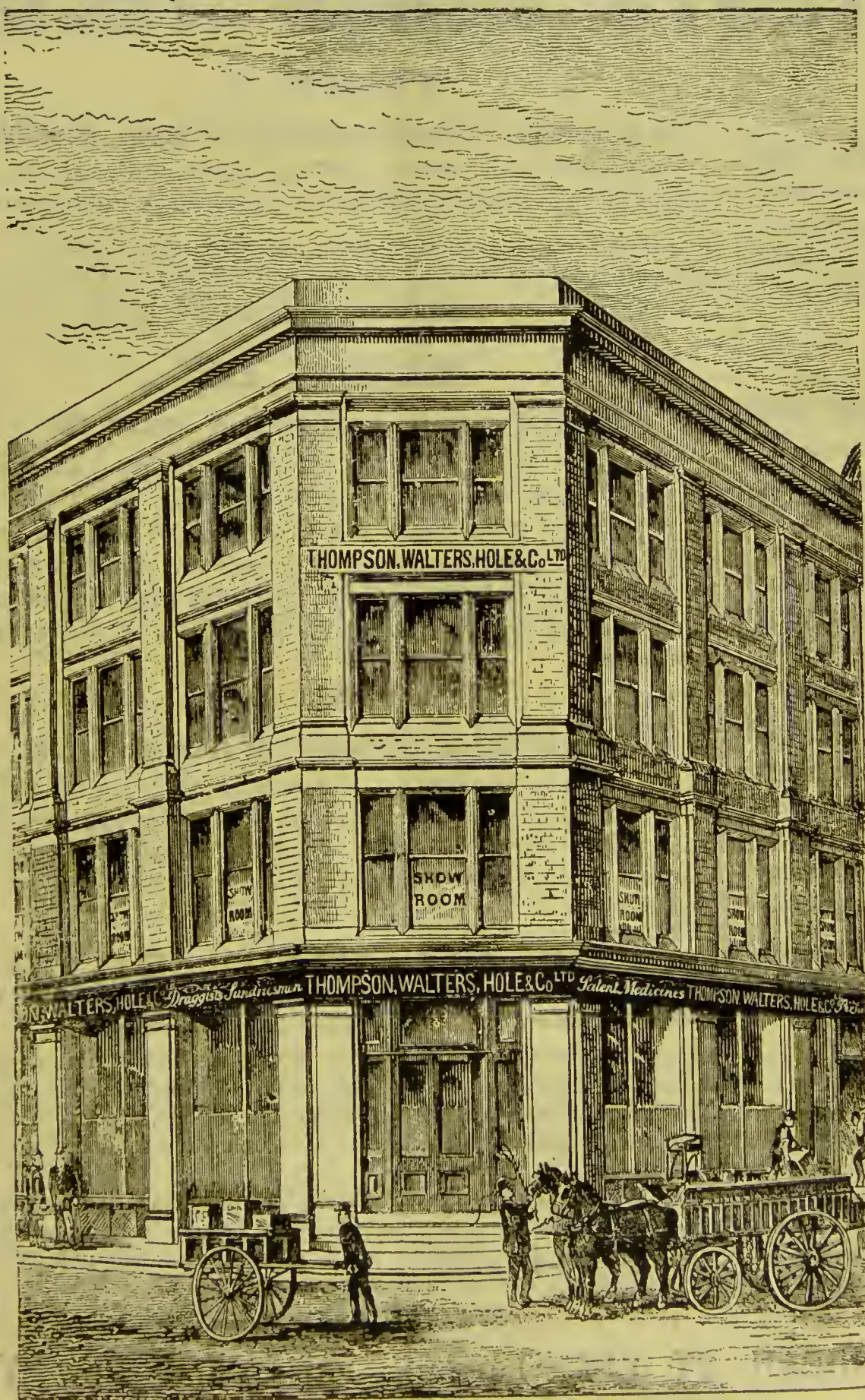
Telegraphic Address—  
"BEATROP LONDON"

CURTAIN ROAD, LONDON, E.C.

Telegraphic Address—  
"BEATROP LONDON."



# THOMPSON, WALTERS, HOLE & CO., LIM



VIEW OF WAREHOUSES.

CURTAIN ROAD, LONDON.



# TESTS WHICH TELL.


## TEST I.

**To determine exact amount of soap present :**

"The cow with the iron tail" has yielded such a large supply of soap that the following simple test may afford a revelation :—

*Weigh 30 grammes of soap, cut into thin shavings, keep at temperature of 100 C. (say in an oven) for two or three hours, and then weigh. The soap should now weigh not less than 25 grammes.*

## TEST II.

 **To determine presence of extra fat :** 

*Dry the soap, shake with ether, decant the liquid, and evaporate to dryness. If fat be present it will now appear.*

"Vinolia" Soap should not be confounded with the so-called "superfatted" imitations, some of which are simply mixtures of indifferent soap and fat ; and the remainder, soap without any fat, the absence of the latter being compensated for by a liberal supply of alkalies.

## TEST III.

**To determine presence of free alkalies :**

*"To prove the neutrality of a soap, a little of a hot solution of corrosive sublimate is allowed to drop on a freshly-cut dry surface of the soap. Should a trace of yellow appear (due to the formation of yellow oxide of mercury), free alkali exists in the soap"—EDIN. MED. JOURNAL.*

**'VINOLIA' SOAP**  
is De-hydrated.  
(It does not contain 40% of water.)

**'VINOLIA' SOAP**  
is Superfatted.  
(Some of the extra fat going to constitute bi-fatty Soap molecules.)

**'VINOLIA' SOAP**  
is De-alkalised.  
(Something more than the ordinary neutral Soaps.)

# "VINOLIA" SHAVING SOAP.

**A de-alkalised, de-hydrated, superfatted Bay-Rum Soap.**

THE evils of ordinary soaps are doubly intensified when used for shaving, both as regards the action of the alkalies upon the face, and also of the essential oils employed for scenting. "Vinolia" Soap yields a staying substantial lather, free from alkalies, and is charged with bay-rum, the desirable qualities of which have rendered it of such widespread usefulness.

While a harmless thick lather makes shaving a comfort and pleasure, an evanescent alkaline one causes smarting, and renders the face liable to become rough and blotchy. "Vinolia" Soap is the only proper shaving soap to use, and will not cause disappointment. It does not dull the razor's edge or irritate the skin.

*PRICES—Shaving Soap, 2s. and 3s. 6d. per Stick ; Toilet, 2s. 6d. ; Medical, 2s., per Box of 3 Tablets.*

**BLONDEAU ET CIE., London, Paris, and New York.**

English Depôt—RYLAND ROAD, LONDON, N.W.



# TO THE EXPORT TRADE.

WE extend special facilities to all the Foreign Wholesale Houses who handle our goods, and such would find it to their advantage to communicate with us. We prepare a "Vinolia" for Export, put up with direct regard to the exigencies of hot climates, transportation, &c. To avoid mistakes, all "Vinolia" which is designed for foreign trade is stamped with the words—"for Export only." *Unless the Wholesale Houses bear this in mind, "Vinolia," as ordinarily put up, may be sent out, with consequent disappointment and dissatisfaction.*

In order to give Foreign Houses every encouragement and facility to push our goods, and always keep a goodly amount on hand, we undertake to supply "Vinolia" preparations in any quantity whatever to the Foreign Trade at Special Terms.

We are now spending considerable sums of money in advertising in foreign countries with very satisfactory results, both to the trade and ourselves, and an ever-growing demand for our goods. We would therefore suggest to all the Foreign Houses that they look to it that their supply of "Vinolia" preparations is not allowed to run low, as those who always have them on hand will be most likely to reap the largest share of the returns.

All the leading houses in this country have had as much pleasure and profit out of handling "Vinolia," "Vinolia" Powder, and "Vinolia" Soap (Toilet, Medical and Shaving), as out of any of the products introduced in recent times, as they are the embodiment of the highest perfection in Pharmaceutical Art. Warmest expressions of admiration, favour, and good report reach us daily from both Medical Men and the Trade. It seems only reasonable for us to find that as our products have been found so satisfactory and generally profitable to the trade in this country, they are proving likewise where taken up with interest abroad.

We are always desirous to co-operate with the trade in every possible way. With this regard we supply most artistic and costly show cards, and literature of the highest class it is possible for us to produce. Our pamphlets are all issued in a unique form, and their execution alone, to say nothing of their superior body matter, is most creditable to all distributing them. Literature can always be obtained from us in any quantities desired.

Our goods are handled by all the prominent houses of foreign countries, among whom may be mentioned the following firms:—

AUSTRALIAN DRUG CO., Limited, Sydney.  
BATHGATE & CO., Calcutta.  
CAMPBELL, NEIL S., & CO., Colombo, Ceylon.  
CASWELL, MASSEY & CO., New York.  
DELGADO BROS., Brown's Town, Jamaica.  
ELLIOTT BROS., Ltd., Brisbane and Sydney.  
EVANS, LESCHER & WEBB, Spain.  
FELTON, GRIMWADE & CO., Melbourne.  
KEMP & CO., Bombay.  
KUNTZEN & CO., Brazil.  
LENNON & CO., Port Elizabeth, South Africa.

LLEWELLYN, J., & CO., Ltd. Shanghai.  
McKESSON & ROBBINS, New York, U.S.A.  
NATHAN, H., & CO., Australia.  
NEW ZEALAND DRUG CO., Dunedin,  
Christchurch, Wellington, and Auckland.  
PROSSER, TAYLOR & CO., Brisbane.  
ROBERTS & CO., Rue de la Paix, Paris.  
ROCKE, TOMPSITT & CO., Melbourne.  
SHARLAND & CO., New Zealand.  
TREACHER & CO., Bombay.

*Prices:—"VINOLIA," 1s. 9d., 3s. 6d., and 6s. per Box; "VINOLIA" POWDER, 1s. 9d., 3s. 6d., and 6s. per Box; "VINOLIA" TOILET SOAP, 2s. 6d. per Box of Three Tablets; "VINOLIA" MEDICAL SOAP, 2s. per Box of Three Tablets; "VINOLIA" BAY-RUM SHAVING SOAP 2s. and 3s. 6d. per stick.*

**BLONDEAU et CIE., London, Paris, and New York.**  
English Dépôt—Ryland Road, London, N.W.



# PROGRESS & POVERTY

As there seems to be an impression abroad that we have agents in various parts, we would inform our friends that we have no agents whatever, but sedulously adhere to the principle of giving to the trade whatever would otherwise pass into the hands of agents. We go a step further than this, and may say that we have done for the trade what never has been done by anyone before. The small retailer knows very well that he has been, and is now, to a certain extent at the mercy of the cutters. It may be here incidentally observed that hundreds of small retailers have communicated with us during the past year, and by the co-operation which it has been our privilege and pleasure to enjoy with them, they have materially increased their business. It would be a great surprise to many if they could see some of the letters of thanks which we have received from Chemists in return. *This is no mere story, but absolute fact.* So great has been the assistance which we have rendered in some cases, that awhile ago one of the large houses in Great Britain complained of aid which we had rendered small houses, and asked for an explanation of this as they had always kept our Preparations. We wrote back that if they would refer to the back numbers of our advertisements in THE CHEMIST AND DRUGGIST and other journals they would see that we had desired all Chemists who had stocked our goods to notify us that they had done so, stating that it would be to their advantage. It may be noted here, *en passant*, that no houses are so big that they can afford to pass by advertisements without reading them.

But to pursue the subject-matter in hand. Hitherto hardly any houses have been willing to supply the small retail Chemists on the same terms that they would the largest houses. Hence it follows that the small houses have been to a certain extent at the mercy of the larger ones. When, therefore, the cutters thought fit to operate it was to the damage of the small Chemists. The fact may be as well faced by the latter as not, that the present mode of cutting does not materially benefit the cutter, and is injurious to the Chemist. He should therefore hail as a salvation-measure a proceeding whereby the Chemist, if he chooses, can place himself on the same footing as the cutter. It is not necessary for him to have millions to do this. A little enterprise, or a little co-operation with his brethren, and a little wise provision on the part of manufacturers, *such as we have arranged*, and the Chemist's financial thermometer will at once go up.

We have said we have no agents, but as we do not ourselves supply any goods or orders amounting to less than £25, there will doubtless be an insatiable longing on the part of many of our friends to do business with intermediaries still. But for those who have the enterprise to push our goods, and if need be join some of their friends in ordering a fair quantity of our Preparations, there are reserved precisely the same terms that are conceded to the greatest houses in the world on a similar order. For those in a fair way of business who will take larger orders still, we are prepared to make large concessions, but the scale of discounts soon reaches a limitation, so that the enterprising retailer need not labour at any disadvantage whatever, and may easily obtain our very best terms.

It will readily be seen that those who take good supplies of "Vinolia" products can make good displays of the same. To all such we are prepared to supply artistically-designed show-cards of high merit, and also literature, in quality and style very different from the ordinary advertising circulars doled out to the trade. We think we can without challenge claim that no more attractive preparations than ours can appear in a Chemist's window, and many have avowed their pride in having them on their counters. Not only this, but



they give satisfaction to physicians and customers, and redound to the great credit of the Chemist who introduces them. They are the embodiment of pharmaceutical and artistic perfection.

As to Vinolia Soap, it may be called **a Doctor's Soap and a Chemist's Soap**. All Chemists should bear in mind that when they buy some of the ordinary soaps by the cwt. from the traveller they have in a large measure to create their own demand, and sell an article of inferior merit on small profit, and moreover do all this in competition with the grocer, the oil shop, and the store. Whereas we create what demand there is for Vinolia Preparations, and **when a large stock of them is laid in they are already half sold**. Besides, the prestige and high reputation of our products, backed up by the medical faculty and scientific chemists of Europe, are matters not lightly to be passed over.

But we can readily imagine that the Chemist who wants two boxes of "Vinolia" Soap and three boxes of Cream may say to himself: "All this is very well, but at the present moment I only want a small quantity; later on I intend to take advantage of these offers." To such we may say, most of the wholesale houses are now allowing a very liberal discount on Vinolia Cream, Powder, and Soaps, and we throw out the vital hint that hundreds of Chemists would find it surprisingly to their profit if they bought for cash. We know whereof we speak. Those who are prepared to co-operate with us will find it, we think, to their advantage to communicate with us. Where favours and privileges are extended to us, our friends will always find that we are only too anxious to reciprocate in measures full up, pressed down, and running over.

## IS VINOLIA SOAP SUPERFATTED? IS IT NEUTRAL?

CHEMICAL LABORATORY,  
ST. MARY'S HOSPITAL, PADDINGTON, W.

June 10th, 1889.

Messrs. BLONDEAU & CIE.,

DEAR SIRs,—I have recently inspected the process of manufacture of your "Superfatted 'Vinolia' Soap," and carefully analysed the various materials employed, and the finished products.

The results show that the ingredients are of excellent quality for the manufacture of a first-class soap and that the process is carried out in such a way as to render the products wholly free from all surplus uncombined alkaline matter, and therefore incapable of acting on tender skins, in the injurious and objectionable fashion exhibited by most kinds of ordinary soap. A further amelioration is also effected by the incorporation with the soap of extra fatty matter, well calculated to soften the skin, and diminish the tendency to irritation sometimes caused in very tender subjects by even the purest of ordinary soaps.

The Medical "Vinolia" Soap is impregnated with balsamic essential oils of antiseptic character; whilst the Toilet "Vinolia" Soap is delicately scented, and wholly free from poisonous metallic colouring matters.

I am, yours faithfully,

CHAS. R. ALDER WRIGHT, D.Sc., F.R.S.

(Lecturer on Chemistry in St. Mary's Hospital Medical School; Cantor Lecturer on Toilet Soaps, Society of Arts, London; Late Juror on Soaps, International Health Exhibition, London; Vice-President, Society of Public Analysts, &c., &c.)

# BLONDEAU & CIE.

RYLAND ROAD, LONDON, N.W.



## EXCHANGE COLUMN.

## FOR DISPOSAL

## Drugs and Chemicals.

Fine scum 7 lb., 23 lbs. 6d.; raw camomiles same price; send stamp for sample. Shaw & Co., Doncaster.

23 lbs. gum (sorts), 9s. 1lb.; 14 lbs. gum myrrh, 1s. 3d. 1lb.; 31. good musk, 60s.; 23 lbs. gum kowrie, 6s. 1lb.; 14 lbs. good gum benzoin, 1s. 3d. 1lb. J. C., Lingdale, Skelton, R.S.O.

20 off drug-list, or exchange for Beecham's, Eno's, Cooke's; ext. sarze liq., potas. iod., collodion, amyl nitrite, iodoform, morphine, sodii salicyl., argent. nit., antipyrine; send for list. Fowler, Poolesea.

## Formulae.

Reliable recipes, 6d. each; full set of 130 neatly copied in book, 7s. 6d.; send for list. "Chemist," Edwards, Wye, Kent.

Brooks' Recipes.—All practical; easily made; pay splendidly.—Toothache cure, seldom fails; Blood Cleanser, excellent preparation; Hop Tonic, costs 1s. 1lb.; Herbalade, fine aroma, appetising and digestive; Jnhilee Sance, mellow, piquant, appetising, digestive, 6d. pint; Pig Powders, best sold; Ringworm Specific, never fails; Influenza Mixture, sold with confidence; Nursery Lotion (non-poisonous), certain death to nits, &c. Recipes 7d. each, 3 for 1s. 6d.; post free also list of 400. Tom Brooks, Chemist, Hornsey, N.

## Proprietary Articles.

Moonseed hitters; state quantity can take. 32/38. Joh lot of patents; send for list. Kemp, Alford, Lincolnshire.

3 dozen salt regal, 2s. 6d., at 20s., free to any Liverpool house. Mickle, Chemist, Liverpool.

What offers, or exchange, for 3 doz. Viking ess. beef and quantity of Mason's ess. beef? Weston, Ventnor.

Giving up business.—A quantity of 1s. 1½d. and 2s. 9d. patents, cheap, all clean and saleable; send for list. 33/19.

Dobson's black leg drinks, a parcel of 3s. and 5s. 6d. size to be sold, a bargain; no reasonable offer refused. 12/68.

## Literature.

Several books suitable for Preliminary. Apply, Dent, Swaffham.

"Year-Book of Pharmacy," 1872 to 1880; not belag used, anyone can have the lot for 9s. Fordass, Driffield.

Attfield's, latest edition; Southall's Herbarium, quite new; what offers? F. Moss, 38 Robertson Street, Hastings.

Pharmaceutical Journal, complete, 1841-1890, unbound, wrapped in yearly bundles, very clean condition; what offers? Corder, North Shields.

"Therapeutics," Rieger, 10s.; "Year-book of Pharmacy," 1874-75-76-77-79, 2s. 6d. each; "Art of Dispensing," 3s.; "Progress of Pharmacy," 2s. 6d. Slade, Tenbury.

Squire's "Companion," 13th edition; Martindale's "Extra Pharmacopoeia," 3rd edition, good condition; what offers? Thornley, Chemist, Ripon.

Laurie's "Homoeopathic Domestic Medicine," Knox's "Manual Anatomy," Minter's "Materia Medica," Willis' "Materia Medica," Johnson's "Domestic Hydropathy"; what offers? Christopherson, Swaffham.

12 vols. "Year-Book of Pharmacy," 1874-1885; 30 vols. "Pharmaceutical Journal," commencing 1854, 23 vols. bound; "Chemist and Druggist" from 1868, 9 vols. bound; what offers? Speechly, Bishop Stortford.

What offers? For sale, "Year-Book of Pharmacy," 8 vols. 1873 to 1880; also 31 vols. "Pharmaceutical Journal," vols. 7 to 17, and 1 to 9 new series, in green cloth, 1870 to 1881 vols. in half calf. Apply to F. Thompson, 20 High Street, Bedford.

## Shop Fittings.

For Sale.—Bargains.—All numbers refer to Maw's Illustrated List.—Wall cases: 8 ft. piano case, as A88, a bargain; 6 ft., as fig. A86; ditto, 3 ft.; several others cheap. Elkanah Natali, 207 Old Street, Shoreditch.

Bent-glass mahogany counter-esse, three trays, mirror-back, Maw's, fig. A 17, 42 in. by 21 in. by 8 in.; also mahogany tooth-brush case, fig. A 9; exchange for case, fig. A 18, 6 ft. by 18 in., or sell cheap. Ryley, 23 Lowgate, Hull.

Glass bottles, job lines.—About 50 gross 3-oz. pale green bottles for corks, suitable for pomade, vaseline, or furniture cream, 4s. per gross; 3 gross 1-pint (reputed) green glass ayurps, 7s.; 2 gross pint ditto, 15s.; 3 gross 1-pint white glass syrups, 20s.; 3 gross 2-oz. white globe-necked panels, 7s. Hearn, Bottle Works, 381 Kingsland Road, London.

Dispensing screens, as A54, 3 ft., 4 ft., 5 ft.; as A55, 5 ft., 6 ft., 7 ft., and 8 ft., at very low prices; screens, with silver plate-glass centre and cases at each side, with tablets on top "Dispensing Department," 3 shelves at back entire length, 5 ft., 6 ft., 6 ft. 6 in., 7 ft., 8 ft.; sketch on application. Elkanah Natali, 207 Old Street, Shoreditch.

Specie jars, from 18 in. to 36 in. royal arms; dispensing scales, as fig. 7; pill machines, ointment jars, pink and blue, bottles, mortars, at low prices; 17 ft. run of mahogany-fronted drawers, lockers, shelving, cornice, &c., 10/2 10s.; wall fixtures, 12 ft., 16 ft., and 20 ft., cheap. Elkanah Natali, 207 Old Street, Shoreditch. No connection with any other house of the same name.

Counter-esse, 6 feet long, bent plate glass, as Maw's A18, price 5/2 10s.; several nests of drawers; ECO labelled shop-rounds, second-hand, 7s. 6d. per doz.; haek store hottles, 1s each; quantity of blue ointment jars, lids damaged, 1s. each; also counters, glass wall-cases, specie jars, carboys, sponge-cases, dispensing screens, and every description of shop-fittings; great bargains. Philip Joseph, 54 Old Street, Goswell Road, London, E.C.

Counter cases, A18, 5 ft., 5 ft. 10 in., 6 ft., 6 ft. 10 in., cheap; as A16, 4 ft. 8 in., three 3 ft. 1 in.; do., 4 ft. 6 in.; do., 4 ft. 1 in., 2 ft. 5 in., cheap; several others at low prices. Mahogany and plate-glass desk and cases, from 45s. to 65s.; counter case, as A15, 8 ft. long, 5 ft. 7 in. long; tooth-brush cases, as A9 and A10, cheap; sponge cases, as A41, cheap; show stand, with 3 plate-glass shelves, as fig. 3, 4, 5, and 6, at low prices. Elkanah Natali, 207 Old Street, Shoreditch. No connection with any house of the same name.

Upright mahogany counter-esse, two compartments, returned ends, shifting shelves, sliding doors at back, 5 ft. 6 in. long, 6 in. deep, 2 ft. 9 in. high, 30s.; mahogany counter-esse, 3 ft. 6 in. by 2 ft. 10 in.; mahogany counter-esse, 2 ft. square, 5s.; mahogany soda-water stand (fig. A 59 Maw), 40s.; "Dirty Boy," 30s.; 16 l-gallon purple glass carboys, gold labels, japanned caps, 10s.; 10 soiled double trusses, 20s.; green and gold honey show-jars, height 11½ in., 5s., all in good second-hand condition. Farthing, Chemist, Spennymoor.

Nest front shop mahogany drug-drawers, gold labels (not glass), mahogany knobs, 6 ft. long, 4 ft. high, contains 45 medium and 12 large drawers, first-rate condition, best make, 41; neat mahogany drawers and shelf fixture, above 3 ft. wide, 12 large drawers, 2 lockers, good condition, 30s.; handsome mahogany and plate-glass wall-case, corniced top, 3 glass doors, 6 ft. long, 6 ft. high, perfect order, 42; this stands on side set mahogany drawers, large size, suitable for front side or end of shop, 9 ft. long, 3 ft. high 5/2, or wall-case and drawers for 8/2; long mahogany glass case for counter, 8 ft. 6 in. long, 10 in. wide, 8 in. high, 2/2; upright glass case, mahogany, two glass doors, 2 ft. 6 in. long, 2 ft. 6 in. high, shelves at back, 1/2; photo-top counter, 6 ft. long, 12 drawers, good order, panel front, 1/2; mahogany-top counter, fitted in front with mahogany drawers, panel behind, either suitable for front, 8 ft. long, 2/2; carboys, 2 cylinder-shape 4 gall., cut stoppers, 4s. each; 1 gall. iron tincture-press, useful condition, 10s. Kemp & Son, Worcester.

Clearance sale, job lines.—Shop bottles, 6s. per doz.; blue syrups, plug stoppers, 20-oz. 8s., 30-oz. 10s. doz.; carboys from 2s. 6d. each; 8 specie jars, 18 in. high, 7s. 6d. each; royal arms, 60s. pair; mortars and pestles from 1s.; pill machines, all sizes, from 7s. 6d.; mahogany-fronted dispensing screen and counter, plate-glass tablet, 75s.; counter cases, as A18, all sizes; wall cases; glass-fronted and other counters; drawers with glass labels and knobs in all lengths; also back fittings, lockers, &c., to match; a large assortment of other useful shop fittings and utensils; great bargains. Natali & Co., 184 Aldersgate Street, London, nearly opposite Maw's. Established 1863.

## Miscellaneous.

56 dozen soda-water cases; what offers? Bordass, Driffield.

60 lbs. garlic, 4½d. 1b., small parcels; offers for lot. R. O. Mason, Bromsgrove.

Poppy heads, 5s. 1,000; bag 6d.; sample 3d.; small for crushing, 1d. 1b.; bags 6d. Connor, Chemist, Doncaster.

18 1s. and 18 2s. boxes United American Stramonium cigarettes, 20s. the lot. Jones, Chemist, Waverley.

A few boxes Havana, Mexican, Indian, and British cigars, cheap, to clear; good condition. Christopherson, Swaffham.

Menthol roots, perfectly hardy, make strong plants, now ready, 1s. score. "Chemist," Collingham, Notts.

Type-writer, perfect, price 5s.; cost 10s. 6d.; 6d. puffs, assorted colours, 2s. 6d. dozen. Lakeman, Chemist, Leytonstone.

Microscopic slides, anatomical, pathological, interesting; lists and sample free. B., 233 Maida Vale, W.

Bargains.—Rover bicycle, Rudge's rear-driving; Rotary tricycle; both new last year. "Chemist," 17 Holte Road, Aston, Birmingham.

Super oil of lemon (Palermo), last season's, 14 and 25 coppera; what offers for all or part? sample on application. W. Hay, Chemist, Hull.

46-guinea binocular microscope by Beek, with objectives, from 3 in. to 1, complete set apparatus and walnut cabinet with over 77 worth of slides, price 30/2. Halford, Chemist, Hoekley, Birmingham.

Cigars, 20 one hundreds, choice Princesses, 6s., cost 11s.; 10 one hundreds, 10s. 6d., cost 13s. 6d.; 25 fifties, 6s. 3d., cost 8s.; in prime condition, to clear. Slater, Beeston Hill, Leeds.

Microscopic objects, gorgeous polarising, brilliant opaque and entertaining slides, 3 by 1, suitable for evening exhibition, 5s. dozen, list free; 4 dozen slides sent, carefully packed and postage paid, for 21s., to Australian Colonies, Belgium, Canada, France, Germany, India, New Zealand, South Africa; microscope accessories wanted in exchange. Henry Ebbage, 344 Caledonian Road, London.

About 60 lbs. pulv. acid tart., 3 lbs. citric; best offer of 1s. per lb. or above accepted; 4,000 round red vaseline labels, 3s.; mahogany brass 4-grain pill-machine, nearly new (Maw's), 14s.; nearly new self-linking rubber stamp, with dates, cost 15s., sell 5s.; elaborate hand-printing press for amateurs, with large quantity of new type arranged in mahogany cabinet, complete for use, 50s. must sell. W. Whitten, 4 Rucklidge Avenue, Haresden, W.

## WANTED.

Freeman's chlorodyne, 2s. 9d. 33/41.

Shop fittings, bottles, show-cases, &c., &c. N., 17 Mildmay Grove, London, N.

Copy of Pharmacopoeia, Lond., 1851; state price. Speechly, Bishop Stortford.

Empty castor-oil or similar tins. Hargreaves, Preston.

Tooth-forceps, nest cheap drawers, bell mortar, shop-knives. Walden, Ramsey, Man.

Labelled shop rounds, pill-machine, pink ointment jars of different sizes. Full particulars to Noble, Polesdown, Bournemouth.

12-gallon copper still, with block tin worm complete, for steam, in good condition; state lowest terms. Spencer, Low Friar Street, Newcastle-on-Tyne.

## Address Wanted.

C. Daubney (late of Twickenham), residing somewhere in London in apartments.



# JOHNSON & JOHNSON

NEW YORK and LONDON,

MANUFACTURING CHEMISTS,

MANUFACTURERS OF ALL VARIETIES OF

MEDICINAL

AND

SURGICAL

# PLASTERS

IN RUBBER

COMBINATION

(PERFORATED AND PLAIN), AND ISINGLASS AND MUSTARD PLASTERS.

ALSO MOIST ANTISEPTIC DRESSINGS & ABSORBENTS.

## MUSTARD PLASTERS.

We are now preparing Mustard Plasters after an entirely New Process.

Mustard Plasters have always given some trouble to both Physician and Pharmacist, by reason of decomposition from age, thus becoming inert. After years of careful manipulation we have been able to overcome this difficulty, and the Mustard Plasters prepared by us are guaranteed in every way.

ON APPLICATION WE WILL MAIL TO ANY CHEMIST'S ADDRESS A SAMPLE OF OUR

## NEW PROCESS MUSTARD PLASTER,

A comparison of which with any other brand will show them to be much superior.

THEY WILL KEEP BETTER.

THEY WILL GIVE BETTER SATISFACTION TO YOUR CUSTOMERS.

THEY ARE STRONGER THAN ANY OTHER MAKE.

## IMPROVED BELLADONNA PLASTERS

(WITH BORACIC ACID).

### INCREASED ACTION.

We have succeeded in greatly increasing the therapeutic value of Belladonna Plasters.

FIRST.—By preparing the mass in a manner calculated to promote a more rapid absorption of the incorporated drug.

SECOND.—By employing a more reliable extract of the drug than is commonly used.

THIRD.—By the addition of Boracic Acid and a mild rubefacient, by which the activity of the cutaneous glands is stimulated, and their power of absorption increased.

Samples to any Physician's or Chemist's address on application.

ABSORBENT COTTON IN EVEN SHEETS  
Rolled with Tissue Paper between them to prevent felting.



Cotton in this form is as easily applicable as an ordinary cloth bandage.  
Its advantages can be seen at a glance.  
Supplied in all sized Packets from 1 oz. to 1 pound.

Our goods can be obtained from all the leading Wholesale Houses in Great Britain and Ireland, or from us direct.

PRICE LISTS AND ALL INFORMATION ON APPLICATION TO

JOHNSON & JOHNSON, LIM., 1 & 2 AUSTRALIAN AVENUE, E.C.

When ordering through the Wholesale Houses care should be taken to specify the goods of JOHNSON & JOHNSON'S Manufacture.



# Allen & Hanburys' Malt Extract.

(PREPARED IN VACUO.)

ALLEN & HANBURY'S desire to call the especial attention of the Trade to this article. The very considerable quantities required for certain dietetic articles, manufactured under Letters Patent with ALLEN & HANBURY'S Extract of Malt, and the increasing demand for the Extract itself, have induced them to enlarge and improve their vacuum and other special apparatus for the production of the article, and they are now prepared to supply a very large demand. From the quality of the malted grain employed, and the care bestowed on the details of manufacture, including special temperatures throughout the process, ALLEN & HANBURY'S can with confidence recommend it as second to none in its flavour, nutritive value, and power of liquefying gelatinised starch.

Special Quotations for very large Quantities.

# Allen & Hanburys' Castor Oil.

(OLEUM RICINI INSIPIDUM. A. & H.)

Pure, Active, and Absolutely Free from Odour and Unpleasant Taste.

"THE CHEMIST AND DRUGGIST" writes:—

By producing a tasteless and odourless Castor Oil Messrs. ALLEN & HANBURY'S may be congratulated on having achieved a really notable triumph. Their produce certainly has no trace of odour, and it is as free from taste as pure olive or almond oil. It is rather difficult to exactly appreciate this fact, and it is probable that the present generation will hardly fully understand what has been done for them. Castor Oil has an evil reputation clinging to it, which it is impossible for any of us to forget as we approach it. It is only necessary, however, now to dismiss all prejudice from the mind, and a dose of Castor Oil need no longer inspire the dread which clusters round its name in every household.

# Allen & Hanburys' NEW SEASON'S Cod Liver Oil.

Pale—Bright—Limpid and of delicate flavour, maintaining its brilliancy at 32° F.

ALLEN & HANBURY'S being Manufacturers, and not merely Importers, are able to guarantee the absolute purity of their Oil, whilst their long experience of over 30 years enables them to supply Oil of exceptional quality.

Samples and Quotations for large quantities forwarded on application.

FISHING STATIONS—LONGVA & KJERSTAD, NORWAY.

Plough Court, Lombard Street, London.



# Allen & Hanburys

MANUFACTURERS OF

## TABELLÆ

In Bulk, or put up in small Boxes and Bottles



Tabellæ gradually dissolve in the mouth, the affected surfaces are constantly brought into contact with a solution of the remedy, and from the facility with which they can be carried in the pocket they can be used at all times.

Aconite Tincture, m. j.  
Acid Arsenious, gr.  $\frac{1}{50}$  and  $\frac{1}{100}$ .  
Aloin, gr.  $\frac{1}{2}$  and  $\frac{1}{10}$ .  
Aloin Comp.  
\*Ammon. Chloride, gr. iij.  
" Borate, gr. v.  
" Bromide, gr. v.  
" Bromide, gr. x.  
\*Ant. Acid (Sir Wm. Roberts).  
\*Antipyrin, gr. v.  
\*Antifebrin, gr. iii.  
Antim. Tartarata, gr.  $\frac{1}{120}$ .  
Belladonna Tinct., m. j.  
\*Bismuth Carb., gr. v.  
\*Bismuth and Soda.  
" and Ginger.  
\*Borax, gr. v.  
Caffein Citrate, gr. j. and gr. ij.  
" Hydrobromate, gr. ij.  
Calcium Sulphide, gr.  $\frac{1}{2}$ ,  $\frac{1}{4}$ ,  $\frac{1}{10}$ .  
Calomel, gr. j,  $\frac{1}{2}$ ,  $\frac{1}{4}$ ,  $\frac{1}{10}$ .  
\*Camphor, gr.  $\frac{1}{2}$ .  
Cannabin Tannate, gr. ij.  
\*Cascara Sagrada, gr. ij.  
Chloral Hydrate, gr. v.  
Chloralamide, gr. v.  
\*Cocaine, gr.  $\frac{1}{2}$ ,  $\frac{1}{4}$ ,  $\frac{1}{5}$ ,  $\frac{1}{8}$ ,  $\frac{1}{10}$ ,  $\frac{1}{20}$ .  
Codeia, gr.  $\frac{1}{4}$ .  
Confectio Aromat., gr. v.  
" " c. Opio, gr. v.  
\*Digestive, gr. v.  
Digitalis Tinct., m. j.  
Dover's Powder, gr. v.

Eriodymin, gr.  $\frac{1}{4}$ .  
Exalgine, gr. j.  
Ginger.  
Hydrarg. c. Cretâ, gr. j,  $\frac{1}{2}$ ,  $\frac{1}{3}$ ,  $\frac{1}{4}$ .  
Hydrarg. Iod. Rubr., gr.  $\frac{1}{20}$ .  
" " Viride, gr.  $\frac{1}{8}$ .  
" Perchloride, gr.  $\frac{1}{100}$ .  
Hyoscymus Tinct., m. ij.  
\*Kino.  
\*Lithia Carbonate, gr. v.  
" Citrate, gr. v.  
\*Magnesia Carbonate, gr. v.  
" and Ginger.  
" and Peppermint.  
Manganese Dioxide, gr. ij.  
Menthol, gr. j.  
Morphia Mur., gr.  $\frac{1}{4}$ ,  $\frac{1}{8}$ .  
" " gr.  $\frac{1}{40}$ .  
" and Ipecac.  
Nitro-Glycerine, gr.  $\frac{1}{100}$ .  
Nux Vomica Tinct., m. j.  
Opium Tinct., m. ij.  
Papaïn, gr. j.  
\*Pepsin Porci, gr. ij.s.  
\*Peppermint.  
Phenacetine, gr. v.  
Podophyllin, gr.  $\frac{1}{2}$ ,  $\frac{1}{4}$ ,  $\frac{1}{8}$ .  
\*Potassium Bicarbonate, gr. v.  
" Bromide, gr. v.  
" Chlorate, gr. v.  
" Chlorate & Cocaine, gr.  $\frac{1}{10}$ .  
" and Ammon. Chlor.  
" Chlorate and Borax.

\*Potassium Chlorate, Borax & Cocaine, [gr.  $\frac{1}{10}$ .  
" " " gr.  $\frac{1}{100}$ .  
" Iodide, gr. iij.  
" Permanganate, gr. j. & gr. ij.  
Quinine, gr.  $\frac{1}{10}$ .  
" gr. j. and ij.  
\*Red Gum.  
" and Cocaine.  
\*Rhatany.  
\*Rhubarb and Ginger.  
" Ginger and Soda.  
" and Hydrarg. c. Cretâ.  
Salol, gr. v.  
\*Sal Prunella, gr. v.  
\*Santonine, gr. j.  
\*Sodium Bicarbonate, gr. v.  
" Bromide, gr. v.  
" Chlorate, gr. v.  
" Nitrate.  
" Salicylate, gr. v.  
\*Salicine, gr. v.  
\*Soda Mint.  
Sparteïn Sulph., gr.  $\frac{1}{2}$ .  
Strophanthus Tinct., m. ij.  
Sublimate. POISON.  
" Compound. POISON.  
Sulphonol, gr. v.  
\*Sulphur Compound (Dr. Garrod).  
\*Tannin.  
" and Cayenne.  
Urethane, gr. v.

Those of the above Tabellæ marked \* may be had sweetened with Saccharin, and will be found much more palatable and pleasant to take, whilst their medicinal value is in no way affected.

In Bottles, to Retail at 1s., 2s. 6d., and 4s. 6d. each. Wholesale 8s., 21s. and 40s. per dozen.

Chlorate of Potash, Voice, Bicarbonate of Potash, and similar are also put up in small boxes for the pocket.

## TABELLÆ SACCHARINI (A. & H.)

CONTAINING  $\frac{1}{2}$  GRAIN OF SACCHARIN IN EACH.

These will be found very convenient for sweetening Tea, Coffee, Cocoa, &c. One is sufficient for an ordinary tea-cupful.

100 tabellæ in bottle Wholesale prices, 7s. 6d. per doz. bottles.

300	"	"	"	22s.	"	"
620	"	"	"	44s	"	"

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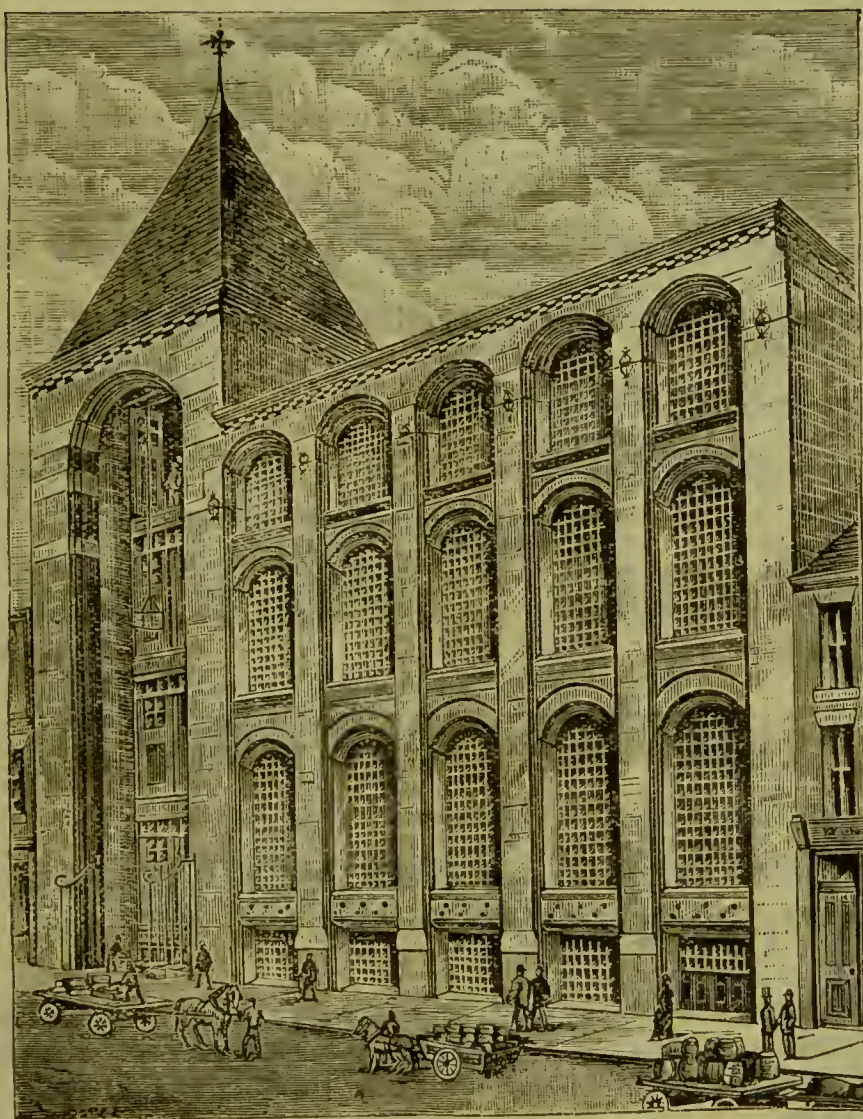
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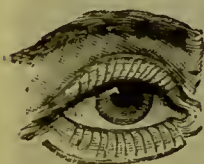
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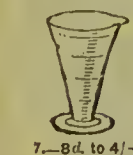
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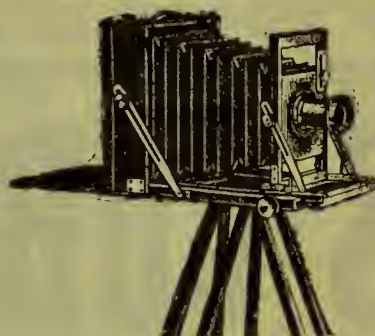
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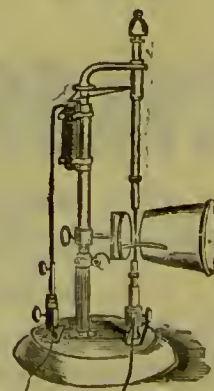
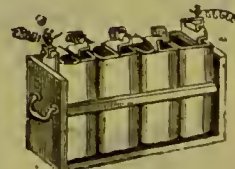
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MAY, ROBERTS & CO., 9 CLERKENWELL ROAD, LONDON, E.C.

AMERICAN BUYERS are particularly Cautioned!!

Telegraphic Address—"FEEDING BOTTLES LONDON."

### "MAY-ROBERTS" WATER BATH, REGISTERED.



This Water Bath will supply a long-felt want amongst Chemists and Perfumers, where small quantities of materials have to be dealt with.

The old form of Water Bath necessitates the use of a second vessel for pouring the melted Pomade, Cream, or other substance into the bottles or jars in which they are sold. In the "MAY-ROBERTS" Water Bath the earthenware bowl can be lifted out of the tin containing the boiling water, the process of cooling being thereby very much expedited, and the contents can be poured into the bottles or jars direct from the bowl. The Bath is also supplied with an earthenware cover.

1 PINT.	5 PINT.	10 PINT.	[1]
Each 3/0 .. ..	5/6 .. ..	9/6 .. ..	

### MAY, ROBERTS & CO.

9 CLERKENWELL ROAD, LONDON, E.C.

Telegraphic Address—"FEEDING BOTTLES LONDON."



# SHIRLEY'S A 1 BRAND MENTHOL CONES.



The Chemist and Druggist says:—Mr. Arthur W. Shirley has produced a very attractive bisquit china figure, represented in the annexed engraving. The advertisement is effective without being at all vulgar, and the little crier, we expect, will soon be a familiar figure about the country.

THIS little figure will be found a blessing to all Chemists abroad, especially those doing business in hot climates. All such have no doubt suffered from the annoyance of getting their Menthol Cones melted through exposure to tropical suns, but this "Little Crier" will sing out lustily the uses and advantages of Menthol Cones, from morning till night, no matter what climate he may be in. This will enable the Cones to be kept in the cool, away from the sun and, while saving loss by reason of extreme heat, will be found greatly to assist sales. Special Parcels have been arranged to suit all classes of trade.

PARCEL 1. 25/.	PARCEL 2. 25/.	PARCEL 3. 25/.	PARCEL 4. 25/.
4 doz. 2d. 1 doz. 3d.	4 doz. 6d.	3 doz. 3d.	1 doz. 9d.
2 doz. 3½d. 3 doz. 4d.	2 doz. 4d.	2 doz. 1s.	2½ doz. 1s.
2 doz. 6d.	1 doz. 1s.	1 doz. 4d.	½ doz. 1s. 6d.
PARCEL 5. 40/.	PARCEL 6. 40/.	PARCEL 7. 40/.	PARCEL 8. 40/.
4 doz. 2d. 2 doz. 3d.	5 doz. 6d.	4 doz. 6d. 4 doz. 4d.	4 doz. 1s.
3 doz. 3½d. 5 doz. 4d.	3 doz. 4d.	1 doz. 9d. 2 doz. 1s.	2 doz. 9d.
4 doz. 6d.	2½ doz. 1s.		½ doz. 1s. 6d.

## MENTHOL with NAME & ADDRESS PRINTED on the CASES.

Certain pattern boxwood shapes can have any wording printed on the cases, and, if translation is supplied, any language can be printed on. It is needless to point out the immense advantages of this. Chemists in the colonies and elsewhere, who order these goods, will find their trade increase 50 per cent.

Think what a splendid Advertisement it is. the Name is printed permanently on the boxwood, and will not rub or wash off.

The view of buyers' premises can be put on with equal ease, if photograph or drawing is supplied. Some advertise a spécialité, such as "Jones' Liver Pills," thus killing two birds with one stone, every Menthol Cone they sell helping to create a trade for their own more profitable spécialité. The shapes the printing can be had on are as follows:—

No. 11A.—Pedestal Shape..... 3/- doz.	No. 9s.—Skittle Shape ..... 3/6 doz.
" 6.—" " ..... 3/6 "	" 17L.—Draughtsman Shape 6/6 "
" 14L.—" " ..... 6/3 "	" 17s.—" " ..... 3/9 "
" 7.—Barrel " ..... 3/6 "	" 9B.—Skittle Shape..... 5 - "

As small a quantity as 1 GROSS can be specially printed, but for each gross ordered the assortment must not exceed two patterns. Full directions are printed on one side of the Cases, the name and address, views, &c., being on the reverse side.

### MENTHOL, in Plain Boxwood Cases, without Printing.

No. 111.—Pedestal Acorn ..... 7/- doz.	No. 113n.—Cartridge Shape, reversible 3/6 doz.
" 8P.—" " ..... 3/3 "	" 17c.—Very flat shape for pocket 5/- "
" 113.—Cartridge Shape ... 3/6 "	" 112.—Draughtsman Shape ..... 3.3 "

### MENTHOL IN ENGLISH WILLOW WOOD, VARNISHED.

No. 107.—Pedestal, 2,3 doz.	No. 109.—Pedestal, large, 3/- doz.	No. 109L.—Very large, 3 - doz.
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NEW PRICE LIST will be out in a few days. One sent free on receipt of Business Card.

ARTHUR W. SHIRLEY, 55 FARRINGTON ROAD, LONDON, E.C.



# SHIRLEY'S "A1" EVER-FRESH SMELLING SALTS

ARE THE

## LINE OF THE SEASON!!



THESE SALTS have been prepared with the greatest possible care, and are as Inexhaustible as it is possible to produce. They are all ready scented, and can be put into smaller bottles without addition whatever. They come as A BOON TO SHIPPERS, whose difficulty has always been to find Smelling Salts which will stand a long journey without losing strength.

The "A1" Ever-fresh Salts will be as fresh and strong when opened in Australia as when they left England.

Sold in bulk in 1-lb. bottles, 2/2 (bottles free), ready scented.

## SHIRLEY'S SMELLING BOTTLES, ODORATORS, ETC.

Over 200 Patterns in Stock, Cut-glass, Moulded, and China.

NEW PRICE LIST with Illustrations will be ready next week, and will be sent post free to any enclosing business card.

All SHIRLEY'S SMELLING BOTTLES can be filled with the "A1" EVER-FRESH SALTS, if desired, at prices ranging from 9d. per dozen upwards, according to size; this price includes packing in wool, in an attractive hinged outer, labelled "Smelling Salts," for the counter or window.



PEACOCK BLUE  
ENGLISH STOPPERED  
BOTTLE.

Filled with Ever-fresh Salts.

1/2-oz.—No. 188.  
1-oz.—No. 189.

1/2-oz. 6d. size, 3/9 doz., 40/- gross.

2 oz. 1s. size, 7/- doz., 72/- gross.



No. 168.

### THE BEST 6d. WATCHES OF 1890.

Price, 3 6 per doz., 38/- per gross.  
Assorted.

Filled with "A1" Ever-fresh Salts.  
4/- doz., 45/- gross.

Above will be found wonderful value, being well cut.



No. 169.

### SOMETHING NEW, to Stand on the Counter or in the Window.

Chemists often find it difficult to make a satisfactory show of SMELLING BOTTLES, consequently their trade in these goods goes into other hands. This diagram represents a pyramid, made of dark blue plush, with bevelled ledges, so that all kinds of bottles can be stood or laid round. An additional safeguard is arranged by means of elastics, which fit round the necks of the bottles, so that the stand can be moved about without any chance of their falling.

### THIS STAND GIVEN AWAY WITH 40/- ORDER.

Any assortment of bottles can be had, but if left to me saleable patterns can be relied on as being sent. In ordering, as a guide, please say about the proportion of 6d. and 1s. sizes desired.

You will find your Trade Double by Starting the Season with one of these Stands.

BEFORE BUYING your Bottles, Odorators, Pump Sprays, China Bottles, and such goods, please call and inspect samples or write for Price List—it is certain to repay you! Only half minute from Farringdon Street Station.

## ARTHUR W. SHIRLEY, 55 FARRINGDON ROAD, LONDON, E.C.





# HEAD-QUARTERS FOR SPONGES: CRESSWELL BROTHERS

1 & 2 RED LION SQUARE, LONDON, W.C.

(To avoid mistakes please carefully note style of firm and address.)

**THE LARGEST IMPORTERS,  
HOLDING THE LARGEST STOCK,  
QUOTING THE LOWEST PRICES.**

## **NEW SEASON'S SPONGES: SPECIAL.**

The largest and best parcels have been secured by CRESSWELL BROTHERS, under the supervision of their Senior Partner, at the Mediterranean Fisheries.

CRESSWELL BROTHERS are enabled to quote for ALL qualities, prices, which are emphatically the LOWEST IN THE TRADE.

## **ANNUAL SPONGE IMPORTS.**

### **ELOQUENT FIGURES.**

Total Imports, last declared - - - - 1,389,235 lbs.

<b>CRESSWELL BROTHERS' IMPORTS</b>	} 33 %
Percentage on Total Value ... ..	

Balance divided amongst remaining houses in the trade (as named in Kelly's Directory) shows average for EACH of only ... ..	} 1 <sup>3</sup> / <sub>4</sub> %
...	

**SPONGES BY THE CASE, BALE, BIN, STRING, BOX, CARD, POUND, OR PIECE.**  
For full particulars see Cresswell Brothers' New Illustrated Price List.

**CRESSWELL BROTHERS,** 1 and 2 RED LION SQUARE (next to Church), LONDON, W.C.



# "PUMILINE."

EXCLUSIVELY OBTAINED FROM



THE SNOW-CROWN PINE PUMILINE

## "PUMILINE" ESSENCE

Is a specially prepared volatile essence, distilled from a particular variety of pine, growing nearest the snow level on the Alps. It possesses exceptional medicinal properties when given internally, or in the form of inhalations, in the treatment of Pulmonary and Diathetic Affections, such as Phthisis, Rheumatism, Gout, &c. It is a valuable deodorizer and disinfectant, and has a peculiarly refreshing and fragrant odour.

## "PUMILINE" JUJUBES

For Sore Throat, Cough, Hoarseness, &c., they give immediate relief.

## "PUMILINE" LINIMENT

Specially beneficial for use in Chronic Rheumatism, Gout, Lumbago, Sciatica, &c. It is also invaluable for Throat and Chest Affections, and may be taken internally, in doses of 2 to 5 drops.

## "PUMILINE" PLASTER

Is most effective in Chronic and Muscular Rheumatism, Lumbago, Sciatica, and also for Chest Affections.

## "PUMILINE" EXTRACT

For Gout, Rheumatism, and Skin Disease; used in BATHS, Ointments, and Liniments.

## "PUMILINE" OINTMENT

For all Skin Affections, Irritations, Insect Bites, Burns, &c. This Ointment is a fine smooth homogeneous application. It gives immediate relief in the intolerable itching of Eczema, &c. It is unrivalled both as a medicinal agent and toilet requisite.

## "PUMILINE" SOAP

Is a carefully neutralised superfatted Soap, containing no free alkali, and is a Lubricant instead of a Desiccant to the skin. It is peculiarly adapted for use to the delicate skin of ladies and children. It leaves the skin smooth and satiny, and beautifies the complexion. The "Pumiline" Essence which it contains makes it a powerful disinfectant.

## "PUMILINE" DRY INHALER

Most effective and convenient pocket inhaler for use in Throat or Lung Troubles. Is invaluable for use during a fog or mist.

G. & G. STERN have so arranged their Price List that a *very large margin of profit* is left to Chemists and to the Trade generally. In consideration of this, as well as the fact *that no other* Pine Preparations are in any way equal to "PUMILINE," Chemists will find it much to their advantage to stock the "Pumiline" Preparations.

### PRICES—

RETAIL

WHOLESALE.

"PUMILINE" ESSENCE.....	1/6 and 2/6 per bottle.....	15/ and 24/ per dozen.
"PUMILINE" EXTRACT .....	1/ per bottle.....	9/ per dozen.
"PUMILINE" JUJUBES.....	1/1½ and 2/3 per box .....	10/6 and 20/ per dozen.
"PUMILINE" OINTMENT .....	1/1½ and 2/9 per pot.....	11/ and 27/ per dozen.
"PUMILINE" LINIMENT .....	1/1½ and 2/9 per bottle .....	11/ and 27/ per dozen.
"PUMILINE" SOAP...(box of 3 cakes)	1/6 and 9d., and 1/ per tablet.....	15/, 7/6, and 9/ per dozen.
"PUMILINE" PLASTER .....	1/1½ each .....	9/ per dozen.
"PUMILINE" DRY INHALER.....	1/6 each.....	14/ per dozen.

BESIDES WHICH AN ADDITIONAL DISCOUNT IS ALLOWED TO CHEMISTS AND THE TRADE.

**G. & G. STERN, 62 Gray's Inn Road, LONDON, W.C.**

Will send Show Cards and Literature Free on Application.



# JEWSBURY & BROWN'S (MANCHESTER) SPARKLING TABLE WATERS, UNRIVALLED FOR PURITY AND QUALITY.

SODA WATER.  
SELTZER WATER.  
POTASH WATER.  
LITHIA WATER.  
SIMPLE  
AERATED WATER.



LEMONADE.  
GINGER ALE.  
QUININE TONIC.  
GINGER BEER.  
HOREHOUND BEER

## EXTRACTS FROM ANALYTICAL REPORTS.

"The examination of the Waters which I have made has satisfied me that they have been prepared with the greatest care, and are of excellent quality."

FRANCIS JONES, F.R.S.E., F.C.S.

"On the whole, I have no hesitation in stating that your Aerated Waters are of the highest standard of purity which is practically attainable."

LOUIS SEBOLD, F.I.C., F.C.S.

J. & B.'s Syphons are mounted with PURE BLOCK TIN, thus ensuring absolute immunity from dangerous metallic contamination

CARRIAGE PAID AND ON RETURNS.

113 MARKET STREET, and 44 DOWNING STREET, MANCHESTER.

## KANGRA VALLEY INDIAN TEA GROWERS' ASSOCIATION.

French & Langdale, 14 St. Dunstan's Hill, London, E.C.

Guaranteed to be Absolutely Pure, as supplied to Europeans in India.

Packed in 1-lb., ½-lb., and ¼-lb. Metallic Air-tight Packets.

No. 1, Orange Pekoe, at 4/ per lb. No. 2, Pekoe, at 3/ per lb. No. 3, Pekoe  
Souchong, at 2/6 per lb. No. 4, Souchong, at 2/ per lb.

Export Prices in Bond, 6d. per lb. less than above, in Chests of 50 lbs. and upwards, shipped free of charge. 50 lbs. Carriage Paid. No Travellers employed. Wholesale Terms and Tasting Samples on application.

These Teas are recommended to Chemists not only on account of their Purity, but because they are Less Astringent than other Indian Teas.



TRADE MARK.

## S. G. CLEMENTS & CO.'S

Cake & Liquid  
**ANNATTO**

PURE, STRONG,  
AND UNIFORM.



**BUTTER  
COLOURING,**  
IN OIL.

ESTABLISHED 1812.

**BRISTOL PRIME RENNET**

AND RENNET POWDER (for Junkets, &c.).

Prices and terms on application.

Special Prices to Buyers of bulk.

Works 12 Lewins Mead, BRISTOL.

## HUGO BROWN & CO.

41 Ormond Street, LIVERPOOL,

SOLE AGENTS IN EUROPE FOR LIEBIG'S

# EXTRACT OF BEEF

MADE BY

MESSRS. A. SANTA MARIA & CO.  
PAYSANDU.

Sold as imported in cases of two tins each, weighing together  
about 112lbs.



TELEPHONE, No. 7523

TELEGRAPHIC ADDRESS—"IDRIS KENTISH TOWN."

# IDRIS & CO.

The Largest Syphon Fillers in the United Kingdom.

**SODA.** Brilliant, Pungent, and Sparkling.

**POTASH.** Prepared according to the British Pharmacopœia.

**SELTZER.** Pure and Delicious Table Water.

**LITHIA** of guaranteed strength.

**LEMONADE.** Pure fruity flavour of ripe Lemons.

**PURITY.** Water filtered by a special process, by which absolute purity is guaranteed. Distilled water used as required. Pure Chemicals only employed. All Goods are regularly subjected to strict analysis.

**ELEGANT SYPHONS.** Best Block Tin or Silver-plated Tops. IDRIS & Co. make their own Syphons, and can therefore guarantee freedom from deleterious metal.

**LOWEST PRICES** for Water, both in Syphons and Bottles. Write for Price List.

**PROMPT DELIVERY** by our Vans in London and Suburbs. Customers called on regularly once or twice a week. Country orders despatched same day as received.

IDRIS & CO. now supply a larger number of the London Hospitals, Public Institutions, and Chemists, than any other Manufacturers, which is in itself a sufficient guarantee of the excellence and purity of the Waters supplied by them.

"I have examined the Mineral Waters prepared by IDRIS & CO., and find that in regard to Chemical purity and brilliancy, they are unsurpassable."

JAMES EDMUNDS, M.D., M.R.C.P. Lond., &c.

*Medical Officer of Health and Public Analyst to St. James's, London.*

# IDRIS & COMPANY,

KENTISH TOWN, LONDON, N.W.



146, MINORIES, LONDON, E.C.  
New York  
Sydney  
&c.

**SODA WATER MACHINERY**  
AND ALL ACCESSORIES  
FOR THE TRADE

**BRATBY & HINCHLIFFE**  
HEAD OFFICE  
SANDFORD ST., ANCOATS, MANCHESTER.

BOXES BOTTLES, MACHINERY  
ESSENCES  
Catalogues, Circulars, Testimonials  
Post Free



# SYPHONS & SELTZOGENES

**GREAT REDUCTION IN PRICE.**

We have recently been entrusted with a most important Agency for the above-named goods. Our Principals are the best known firm in Paris, and the Syphons are undoubtedly the cheapest and strongest in the market. The tops are made of pure English Tin, guaranteed free from lead. The Seltzogenes are made on the well-known "Fevre" system, and each one is thoroughly tested before being sent out.

WE CAN GIVE TO LARGE AND SMALL BUYERS EXCEPTIONALLY LOW PRICES.  
PLEASE WRITE US AT ONCE FOR PRICES, STATING QUANTITY OF EACH KIND REQUIRED



# SODA-WATER MACHINERY

**MELBOURNE EXHIBITION, 1889, UNPRECEDENTED SUCCESS.**

We have obtained at the above Exhibition

## 3 HIGHEST AWARDS POSSIBLE

A feat never accomplished before by any other house supplying requirements for the Aerated Water Trade.

These awards will carry with them **THREE GOLD MEDALS**, which were awarded as follows:—

- 1st—SODA-WATER MACHINERY (Highest Award possible).
- 1st—ESSENTIAL OILS & FRUIT ESSENCES (Highest Award possible).
- 1st—PATENT AND ORDINARY BOTTLES (Highest Award possible).

WRITE FOR NEW ILLUSTRATED CATALOGUE, POST FREE.

# BRATBY & HINCHLIFFE, LIM

Aerated Water Engineers and Glass Bottle Manufacturers,

**SANDFORD ST., ANCOATS, MANCHESTER,**

And at 146 MINORIES, LONDON, E.C.



# FITZSIMMONS & FEARNLEY'S SOLUBLE ESSENCES

**HIGHLY CONCENTRATED, PURE, AND OF FINE FLAVOUR.**

## SOLUBLE ESSENCE OF LEMON

(Concentrated).

Made from the finest selected Messina Lemons, and produces an exquisitely fine Lemonade. Double the strength of any other Essence in the market. Price, 6/6 per lb. Quantity required— $\frac{3}{4}$  fluid ounce to each gallon of Syrup, making 106 10-oz. bottles.

## SOLUBLE ESSENCE OF LEMON

(Ordinary Strength).

A very fine Essence, prepared from the fresh fruit. Price, 4/6 per lb. Quantity required— $1\frac{1}{2}$  fluid ounce to each gallon of Syrup.

## SOLUBLE ESSENCE of GINGER ALE

(Belfast).

The absence of a Compound Essence from which a really high-class Ginger Ale can be prepared has ever been a source of trouble to Mineral Water Manufacturers.

A great number of the leading hotel-keepers pay annually large sums of money for this beverage alone to the few privileged firms who have obtained a reputation for it. Knowing the serious loss of trade which local Mineral Water Manufacturers, both at home and abroad, experience in this manner, we have for some time been engaged in a most exhaustive study of the subject, and have at length arrived at such satisfactory conclusions from careful experiments that we are enabled to offer to every Mineral Water Manufacturer the means of successfully competing against those who have hitherto enjoyed a monopoly in the sale of high-class Ginger Ales. Price, 7/6 per lb. Quantity required— $\frac{3}{4}$  fluid ounce per one gallon of Syrup.

## SOLUBLE ESSENCE OF GINGER

(Jamaica).

Perfectly Soluble and highly Concentrated, guaranteed free from Capsicums. Imparts an exquisite ginger aroma. Price, 4/6 per lb. Quantity required—2 fluid ounces to each gallon of Syrup.

## ESSENCE of "STONE" GINGER BEER

Produces an aerated beverage resembling in appearance, body, and flavour the old-fashioned "Stone" Fermented Ginger Beer, without the delay, uncertainty, and difficulty of the old process of fermentation. Economy in time, labour, and materials. Price, 6/6 per lb. Quantity required— $1\frac{1}{2}$  fluid ounce to each gallon of Syrup.

## SOLUBLE ESSENCE OF HOP ALE.

Made from the choicest Kent Hops, and unrivalled for true hop flavour and aroma. Price, 4/6 per lb. Quantity required—2 fluid ounces to one gallon of Syrup.

## SOLUBLE ESSENCE OF ORANGE

(Concentrated).

An exceedingly strong yet Soluble Essence, of fine flavour and aroma. A trial solicited. Price, 6/6 per lb. Quantity required— $\frac{3}{4}$  fluid ounce per one gallon of Syrup.

## SOLUBLE ESSENCE OF ORANGE

(Ordinary Strength).

Imparts the true flavour of Seville Oranges, and is perfectly soluble. Price, 4/6 per lb. Quantity required—2 ounces to each gallon of Syrup.

## HEADING LIQUID.

We claim for our Heading Liquid that it is from 40 to 50 per cent. stronger than most preparations of the kind, and will be found specially suitable for Lemonade, Ginger Beer, Ginger Ale, and all beverages where a rich white creamy head is desired. Free from large bubbles. Price, 2/ per lb. Quantity required—1 drachm per gallon of Syrup.

# MANUFACTURING CHEMISTS

97, Port St

# MANCHESTER

Indentors should distinctly specify "Fitzsimmons & Fearnley's Manufacture."



TO AERATED WATER MANUFACTURERS




# WINDSOR

## SOLUBLE ESSENCES


REGISTERED

ARE GUARANTEED TO BE THE FINEST IN THE MARKET  
**ESSENCES OF GINGER, LEMON, ORANGE, &c., &c.**  
**HOP ALE & GINGER ALE ESSENCES.**


Besides Gold & Silver Medals the above Essences have obtained the Highest Testimonials  
 from all the Medical Journals,

and from the Principal Trade Journals in this and other Countries.

PRICE LIST FREE ON APPLICATION.



MANUFACTURING  
 CHEMIST  
 BEVERLEY ROAD.



PEPTONATE OF IRON



SOLE MAKERS

PEPTONE OF MEAT

# DENAAYER'S

## LIQUID PEPTONES

STERILIZED

Free from microbes!  
 Keep good for ever in all Climates.  
 116 BISHOPSGATE STREET WITHIN, LONDON, E.C.

DENAAYER'S PEPTONATE OF IRON. A bland, non-irritating and most easily assimilable ferruginous preparation. For debilitated constitutions, children, and aged people.

DENAAYER'S PEPTONE OF MEAT. A powerful restorative for all ailments of the stomach, stimulates general nutrition, is retained when the stomach rejects all other food. Pleasant to taste. Of all Chemists and Wholesale Houses.

**BRAND & CO.'S**  
**PEPTONES**  
 OF  
**BEEF,**  
**MUTTON,**  
**VEAL,**  
 AND  
**CHICKEN.**

To H.R.H. The Prince of Wales, The Empress of Germany, &c.

# BRAND & CO'S.

## SPECIALTIES FOR INVALIDS.

CONCENTRATED

BEEF TEA, VEAL,

MUTTON & CHICKEN BROTHS;

TURTLE SOUP & JELLY, CALF'S FOOT,

JELLY, MEAT LOZENGES

ESSENCES

OF BEEF &

MUTTON

VEAL

AND

CHICKEN

SOLE ADDRESS, 11 LITTLE STANHOPE STREET, MAYFAIR, W.

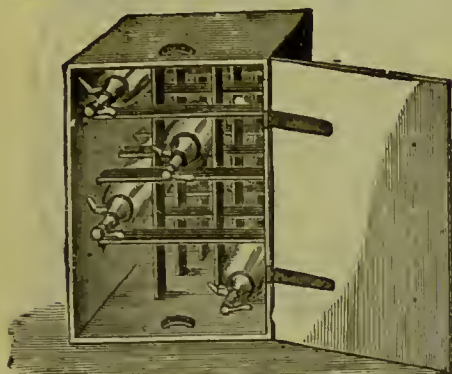


# JOHN OWEN, JUNIOR,

PACKING CASE MANUFACTORY AND STEAM SAW MILLS.

ESTABLISHED 1840.

37 & 38 MINORIES, LONDON, E.C.



MANUFACTURER OF  
Cases of every description for Home use  
and Exportation.

Wine Laths, Oak and Deal.

Mineral Water Bin Cases and Trays.

Bottle Crates, Straw Envelopes.

Cases Lined with Tin, Zinc, Copper, &c.;

ALSO MANUFACTURERS OF THE

"Acme" Incubator & Poultry Appliances.



PRICE LISTS FORWARDED ON APPLICATION.

EXPORT ORDERS RECEIVE SPECIAL ATTENTION.

# CELEBRATED D. FEVRE'S SELTZOGENES.

COMPLETE WITH FITTINGS.

GUARANTEED TESTED

by 175 lbs. of pressure per square inch.

BEST AND CHEAPEST.

## CAUTION.

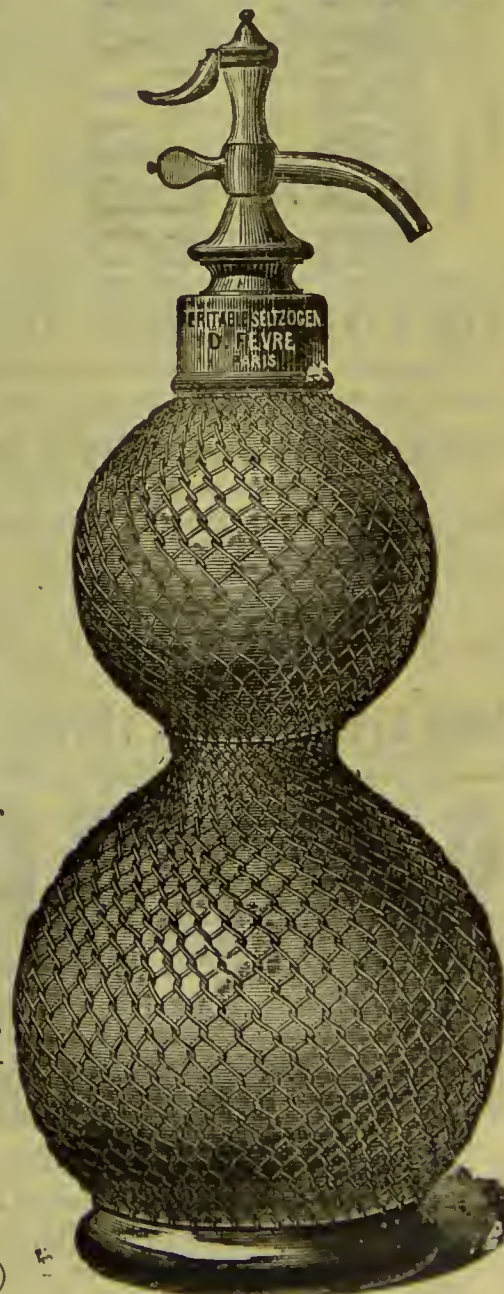
To ensure the purchase of the  
genuine celebrated

## SELTZOGENES OF D. FEVRE,

which do not cost more than the  
imitations, observe on the shoulder  
of the apparatus the words—

"VERITABLE SELTZOGENE D. FEVRE,"

AND THE TRADE MARK SIGNATURE—



## THESSIER-FEVRE,

Sole Manufacturer,

OFFICE—

WORKS—

398 Rue St. Honoré, PARIS. 9 Rue Castex (Near the Bastille.)



Telephone No. 6578. Telegraphic Address—"GERAUT LONDON."

PRIZES AWARDED AT ALL THE EXHIBITIONS.

**EUGENE GERAUT & CO.**

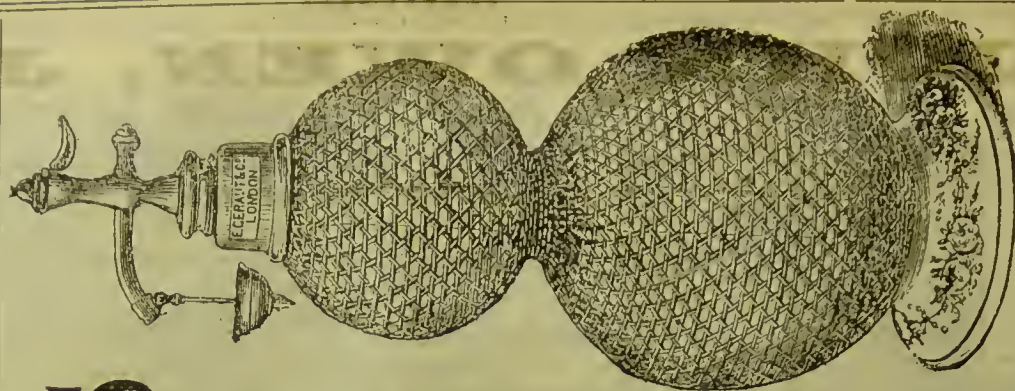
139 &amp; 141 FARRINGDON RD., LONDON, E.C.

**SELTZOGENES**Patentees & Largest  
Wholesale Manufacturers.**3 PINT, WIRE & CANE.**

5 " " " " " "

Tested at a pressure of 240 lbs. per square inch, being double that they are used at, and we guarantee every machine on leaving our firm to be made with pure **ENGLISH BLOCK TIN**, and are made on the Premises.

PRICES AND ILLUSTRATED CATALOGUES, WITH FULL PARTICULARS, SENT FREE ON APPLICATION.

**DEVONSHIRE CIDER.**

Specially Prepared for Exportation to Hot Climates.

Bottlers and the Trade generally supplied with a superior article for Export and Home Consumption.

**JOHN SYMONS & CO.**

Have been Awarded for their Cider and Sparkling Wines

Gold Medal, Calcutta, 1883-4; Gold Medal, London, 1884; Gold Medal, Paris, 1885; Silver Medal, Healtheries, 1884; Brighton, 1889; and First-Class Prize Medal, Cork, 1883.

THIS SEASON'S MAKE IS OF THE FINEST QUALITY.  
EARLY ORDERS SOLICITED.**JOHN SYMONS & CO., TOTNES, DEVON;**

RATCLIFF, LONDON; &amp; FREDERICK ST., LIVERPOOL.

First Honours for Sealing Wax wherever exhibited.

**"LION" BRAND****DISPENSING WAX**

OF BRILLIANT COLOUR.

A Special Series of Six qualities.

Sealing Wax, Parcelling Wax, Bottling Wax, Mail and Bag Wax, of great adhesive power, and for every purpose.

**GEO. STEWART & CO.**

3 DYERS' BUILDINGS, HOLBORN, E.C.

And all Wholesale Houses. WORKS—EDINBURGH.

**SPONGE.****M. L. LAWSON & CO.**

ESTAB. 1839.] SPONGE IMPORTERS, [ESTAB. 1839.

137 MINORIES; &amp; NEW SQUARE, LONDON, E.C.

SAMPLES AND PRICE LIST ON APPLICATION.

SPONGES supplied by us are of **NATURAL COLOUR** as imported, & are therefore **STRONGER** & more **DURABLE**.**WILKINSON'S COMPRESSED**They are introduced to the public to enable them to make their own **HOP BITTERS, YEAST, HOME BREWING**, and numerous other purposes. Full particulars given in each packet.

Samples and Prices sent on application to

**A. WILKINSON & SONS, 37 CANNING PLACE, LIVERPOOL.**

P.S.—Chemists will naturally see the great advantage in making their own Bitters from the Pure Hop itself.

Dealers in every description of Feinglass.

**ENGLISH HOPS.**

Best Hops compressed into small parcels of one pound and half-pound, and sent out in cases containing 30 lbs. each. These hops are specially selected and compressed for keeping purposes, and will retain their aromatic strength for a considerable time.



# WARNING TO THE TRADE.

## MASON'S IS THE ORIGINAL EXTRACT OF HERBS

FOR THE PRODUCTION OF

### **Botanic Beer** A NON-INTOXICATING BEVERAGE.

Full of body and Flavour, with a Creamy Head like Bottled Ale. The most perfect substitute for Alcoholic Drinks ever discovered, for either Summer or Winter.

NUMEROUS IMITATIONS OF OUR EXTRACTS ARE BEING OFFERED, BUT NONE CAN COMPARE WITH OURS—IT IS

**UNEQUALLED FOR PURITY AND HERBACEOUS FLAVOUR.**

Do not be persuaded to buy any other kind, as the market is now flooded with vile rubbish, most of which contain no Herbs at all, and will not produce the same result. We guarantee ours to be COMPOSED OF HERBS ENTIRELY.

**BEWARE** OF OTHERS COPYING OUR  
OLD-ESTABLISHED TITLE.

NO OTHER EXTRACT MAKES BEER LIKE IT.

Sold in Bottles at 6d., 1s., 2s. & 5s. each. with Directions.  
SPECIAL QUOTATIONS FOR QUANTITIES.

ALSO MANUFACTURERS OF

**MASON'S** GINGER ALE EXTRACT, GINGER EXTRACT, HOP EXTRACT,  
FOAMINE, LEMONINE, HOREHOUNDINE & WINE ESSENCES.

SOLE INVENTORS AND MANUFACTURERS—

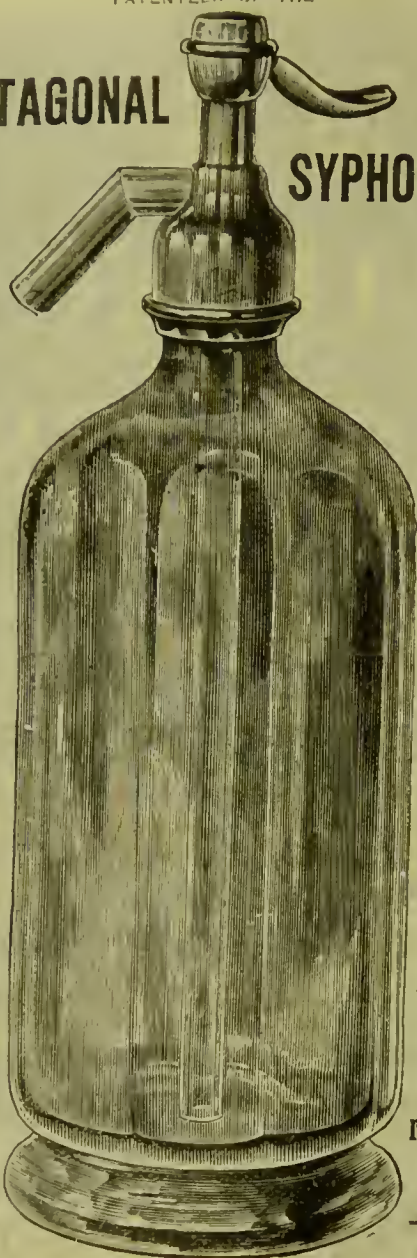
**NEWBALL & MASON,**  
Manufacturing Chemists & Botanic Druggists, NOTTINGHAM.



**JAMES VIDIE ET FILS,**  
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PATENTEES OF THE

**OCTAGONAL**

**SYPHON.**



The "Octagonal" is externally similar to the ordinary Syphon, the interior being blown of an octagonal shape by a new patent process.

Gives a most brilliant and sparkling appearance to the contents, and can resist double the pressure of ordinary Vases. Greatly recommend our new tint, "AZURE BLUE," which is the best tint for Syphon Vases.

Sample  
sent on  
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2/-

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SECTIONAL VIEW.



TO BE HAD OF  
ALL MINERAL WATER ENGINEERS.

TO BE HAD OF  
ALL MINERAL WATER ENGINEERS.

SOLE AGENT:

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**EIGHT PRIZE MEDALS AWARDED**

**GOODALL'S  
HOUSEHOLD  
SPECIALITIES.**

**YORKSHIRE RELISH.**

Most Delicious Sauce in the World. Bottles, 6d., 1s., and 2s. each.

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The Best in the World. 1d. Packets; 6d., 1s., 2s. and 5s. Tins.

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One 6d. Tin is equal to 25 eggs. In 1d. Packets; 6d., 1s. 2s. and 5s. Tins.

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Delicious Custards without Eggs. In Boxes, 2d., 6d., and 1s. each.

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Delicious Blancmange in a Few Minutes. Boxes, 6d. and 1s. each.

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Best Tonic yet Introduced. Bottles, 6d., 1s. and 2s. each.

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Makes the Best Ginger-Beer. Packets, 3d. and 6d.

**GOODALL'S BRUNSWICK BLACK,**

For Painting Stoves, Grates, Iron, Tin, &c. 6d. and 1s. Bottles.

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A Rich and Lasting Perfume. Bottles, 1s., 2s., and 5s. each.

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For Polishing and Cleaning all Metals. Boxes, 6d., 1s. and 2s.

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Make a Delicious and Nutritious Jelly. In  $\frac{1}{2}$ -pint, 1-pint, and Quart boxes, 3d., 6d., and 1s. each.

PROPRIETORS—GOODALL, BACKHOUSE & CO., LEEDS.

**PATENT MEDICINES  
AND  
DRUGGISTS' SUNDRIES.**

Monthly Price List of Patent Medicines, Druggists' Sundries, &c., will be sent post free on application to

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HIGHEST AWARD AT THE INTERNATIONAL EXHIBITION, LONDON, 1885.  
TRADE MARK Registered May 21st, 1867.

**"THE PIONEER TEMPERANCE BEVERAGES."** *Ch. Eng. Temp. Chron.*  
**BECKETT'S**  
**FRUIT SYRUPS & CORDIALS**

**MILD DRINKS.**  
Cherry, Raspberry  
Strawberry, Lime Fruit  
Black Currant, Lemon,  
Orange, Jargonelle Pear,  
Pineapple,  
Raspberry Vinegar,  
Orange and Quinine.

**HOT DRINKS.**  
Wintering Honey Liqueur  
Aromatic, Black Currant  
Gingerette, Ginger Lemon  
Peppermint, Clove,  
Elderberry, Syrup of Hops  
Lime Fruit Cordial,  
Raspberry Cordial.

"First-class beverages."—*The Grocer*.  
"Have an established reputation."—*Nonconformist*.  
"That Beckett's Fruit Syrups are equal to what their proprietor claims for them is proved by the fact that they are largely used in Coffee Houses throughout the country."—*Coffee Public House News*.

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"All Mr. Beckett's preparations are most tastefully bottled and labelled, and their bright appearance makes them ornamental to the shelves of the Confectioner and Temperance Hotel-keeper."—*Good Templar Watchword*. [Review]

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Free Lists, Testimonials, and other information sent post free on application to the Manufacturer—**W. BECKETT, Heywood, Manchester**

**"LA JOYA"** This First-Class Brand of English-Made Cigars  
IS MANUFACTURED SOLELY BY

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TOBACCO, CIGAR, SNUFF, AND CIGARETTE MANUFACTURERS

Who will be pleased to send a sample FREE to any address in the United Kingdom on application.

A box of 25 (as in margin) for 5/, or a box of 50 for 9/, on receipt of Postal Order or Stamps, carriage paid.

The only Manufacturers of the CELEBRATED 'ROYAL CHARTER' TOBACCO.

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542 KINGSLAND ROAD, LONDON, N.E. ESTABLISHED 1853.



**Fry's Pure**  
**Cocoa**

To secure this article  
ask for  
**FRY'S PURE  
CONCENTRATED**



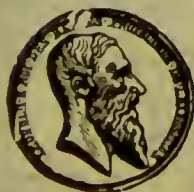
**"MYRTLE GROVE" TOBACCO**

In 1-oz., 2-oz., and 4-oz. Packets, and  $\frac{1}{4}$ ,  $\frac{1}{2}$ , 1 lb. Tins only.

**TADDY & CO., 45 Minories, LONDON**

ESTABLISHED 150 YEARS,

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Write for List of Specialities.

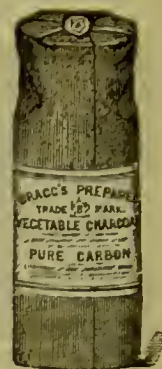


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Sold in Powder, 2/-, 4/-, and 6/- bottles; also in Biscuits, 1/-, 2/-, and 4/- tins (Children like these), and in Lozenges, 1/1½ tins (portable and convenient).

Undoubtedly the most natural preventative and curative agent in all cases of Indigestion, Disorders of the Liver, Fevers, Cholera, Dysentery, &amp;c.

The trade cannot do better than keep these old-established and safe preparations under the notice of their customers.

**VEGETABLE CHARCOAL.**

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**J. L. BRAGG, 14 WIGMORE ST., LONDON.**



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**MILLAR'S BRITISH WINES.**

ORANGE (suitable for Quinine), GINGER, RAISIN, COWSLIP, CHERRY, &amp;c.

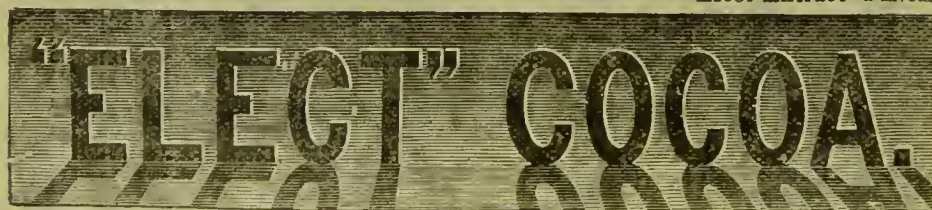
**A. MILLAR & CO., Thomas Street, DUBLIN.**

Sole Agents for London and District—H. J. ROYDANT &amp; CO., 75 Acre Lane, Brixton, S.W.

**RAIMES' CACHOUS.**RED AND WHITE ROSES, The most popular Cachou in the Trade.  FRAGRANT "BOUQUET" CACHOUS HELIOTROPE  VIOLET  ORANGE BLOSSOM  PRIMROSE The excellence of the perfume and the superior make of these Cachous create a great demand wherever they are introduced.  
Price 2s. 6d per lb., 5 per cent. discount. Samples on application.  
Parcels of 14 lbs. forwarded carriage paid, with a handsome Glass Show Jar gratis (fig. A, No. 5, Maw's list), on receipt of P.O.O. for 3s.**RAIMES & CO., WHOLESALE DRUGGISTS, YORK & EDINBURGH.**  
LONDON AGENTS—TIDMAN & SON, 21 WILSON STREET, E.C.**ROWNTREE'S**

The "MEDICAL PRESS AND CIRCULAR":—

"Certainly this preparation is of delicate flavour . . . It is perfectly soluble . . . the small quantity required for the immediate production of a cup of excellent cocoa will ensure for this 'Eleet Extract' a favourable reception at the hands of persons of weak digestion, and all who prefer this wholesome beverage to tea and coffee."



The "BRITISH MEDICAL JOURNAL" says:—

"Rowntree's Cocoa Extract is one of the best. Its flavour and aroma are good. Cocoa thus prepared is one of the most digestible articles of food."

YORK, ENGLAND.

**ROBINSON & WORDSWORTH,**

MANUFACTURERS OF GENUINE

**LIQUORICE****CONFECTIONERY,**

FINEST QUALITY IN THE MARKET.

THE

NOTED "CASTLE" BRAND.

Victoria Works, PONTEFRAC.

**CIGARS, ETC.**

At the Lowest Wholesale Prices.

La Juana .. ..	10/6 per 100, Sold at 2d. each.
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El Sol Habanera, .. ..	22 per 100, Sold at 4d. each.
Havannah 1885 Crop	
&c., &c. TOBACCO, CIGARETTES, &c.	

Samples on receipt of 1s. 6d. in Stamps.

**BEWLAY & CO., LTD.**

Tobacco Manufacturers and Cigar Importers,

49 STRAND, and at 143 CHEAPSIDE, LONDON.

ESTABLISHED OVER 100 YEARS.



# PASCALL'S GOLDEN MALTEX

*Manufactured under Patent No. 1,506.*



Contains  
25 per cent.  
of  
Allen & Hanburys'  
Extract of Malt.



Registered Title and Mark  
No. 87192-93 & 90587-88.

## A NOVEL CONFECTION MOST SALEABLE.

Delicious Flavour. Brilliant and Attractive Appearance.

## SELLS AT SIGHT.

*Vide Dr. Tanner's Report, and The Chemist and Druggist, April 20.*

**1/- Bottles, 9/- per dozen; and in 4-lb Jars, 1/6 per lb.**

The cheapest and best package for retail is the 1-lb. bottle, tastefully finished, 20/- per dozen.

Specially prepared 2 and 4 oz. Bags, lined with waxed paper, supplied with each bottle for retailer.

I consider "PASCALL'S GOLDEN MALTEX"—in which is incorporated 25 per cent. of Allen & Hanburys' Malt Extract—a most valuable addition to the preparations now used in the treatment of Consumption and other wasting diseases. They are an excellent and an agreeable substitute for Cod Liver Oil, but with this advantage, that they assist and do not impair digestion; and both adults and children take them without any difficulty, as they are a most delicious compound.

I feel I can scarcely speak too highly of their qualities for giving power to weak, delicate children, phthisical patients and infirm persons, with feeble digestions.

JOHN TANNER, M.D., M.R.C.P., F.L.S.  
Senior Physician for the Diseases of Women and Children to the Farringdon General Dispensary  
and Lying-in-Charity, Late Physician to the Metropolitan Hospital, &c, &c.

February 25th, 1889.

The "CHEMIST AND DRUGGIST" says—

The tablets are skilfully manufactured to look like little gilt bags stitched up with red silk, and they are not less attractive in consumption. The pharmaceutical character they possess is imparted by the fact that they contain 25 per cent. of Allen & Hanburys' Malt Extract. . . . They are an excellent substitute for cod-liver oil, and that they are an improvement on it will not be denied by the most frantic lovers of the luscious oil.

# PASCALL'S BLA-CUR-EX.

REGISTERED.

Composed of Black Currant Extract and Price's Glycerine.

SAME PRICE AND FORM OF PACKAGE AS MALTEX.

COUNTER BILLS POST FREE ON APPLICATION.

OF ALL WHOLESALE HOUSES, OR OF THE MANUFACTURER,

JAS. PASCALL, BLACKFRIARS ROAD, LONDON, S.E.



The central illustration is a detailed drawing of a three-tiered metal lamp. The top tier is a lid with a knob, inscribed with "SAND CLARK'S PATENT PYRAMID FOOD WARMER" and "RECD 91291". The middle tier is a band with a decorative floral pattern, inscribed with "CLARK'S PATENT PYRAMID NIGHT LIGHTS SUITABLE FOR TRESS LAMPS" and "BURN 8 HOURS". The bottom tier is a glass globe containing a flame, inscribed with "CLARK'S PATENT PYRAMID NIGHT LIGHT". The lamp has two ornate handles and sits on a decorative base.

Surrounding the central lamp are four diagrams illustrating the "NEW SHAPE" improvements over the "OLD SHAPE":

- Top Left:** A diagram showing a hand pouring sand from a funnel. The funnel is labeled "OLD SHAPE".
- Top Right:** A diagram showing a hand pouring sand from a funnel. The funnel is labeled "NEW SHAPE".
- Bottom Left:** A diagram showing a hand pouring sand from a funnel. The funnel is labeled "OLD SHAPE".
- Bottom Right:** A diagram showing a hand pouring sand from a funnel. The funnel is labeled "NEW SHAPE".

The "NEW SHAPE" funnels are designed to be more efficient, as indicated by the arrows showing the flow of sand. The "OLD SHAPE" funnels are shown for comparison.

**CLARKE'S IMPROVED PANAKINS (REGISTERED) FOR USE  
WITH CLARKE'S "PYRAMID" NURSERY LAMP.**

WHOLESALE PRICES	No. 1	---	---	30/	per dozen.	} Cash discount, 5 per cent.
LAMP8 COMPLETE	" 2	---	---	33/	"	
	" 3	---	---	38/	"	

Tin Panakins, No. 1, 6/ ... No. 2, 10/ ... No. 3, 12/  
... Roughed, 6/ ... Opaline, 6/ ... Coloured, 6/ ... Ruby, 6/

Dear Glasses 4/ — Boughed, 6/ — Opaline, 8/ — Coloured, 6/ — Ruby, 8/

R.B.—Ask for CLARKE'S PANAKIN, and see that his name and the registered number (Registered 91,241) is on the Panakin, and trade mark "PYRAMID."

Clarke's Patent "PYRAMID" NIGHT LIGHTS are the only Lights suitable for these Lamps.

Sole Retail by all respectable dealers, and Wholesale by the Patentee, S. CLARKE, —PYRAMID— AND "FAIRY" LIGHT WORKS, CRICKLEWOOD, LONDON, N.W.

London Show Room—31 ELY PLACE, HOLBORN CIRCUS, E.C.

FOR INFANTS AND INVALIDS.

For use with CLARKE'S "PYRAMID" NURSERY LAMP FOOD WARMER.

This is an invaluable invention, and useful appliance at the bedside, suitable for Infants, and particularly for Parents whose Infants require Feeding during the night. It obviates the necessity of retting out of bed, and everything required for use can be put on the Tray. The Tray is adapted for use in connection with Carko's "Pyramid" Food Warmer, and when not required can be turned to the wall in such a manner as to shade the Person in bed from the Rays of the Light.

Invalids will find it a Great Comfort, for any book, plate, basin, &c., can be placed thereon ready for use, and obtained without altering the position in bed. By means of a slide, the Tray can be pulled forward to the position or length required. It is Highly Recommended by the Medical Profession, and can be obtained from most dealers in Clarke's "Pyramid and "Fairy" Lamps.

Tray, 15/, with Book Rest & Medicine Box, 21/, loss 33½ per cent.  
Food Warmer, see above.

**N** with Brass Bracket, 1s. extra. Adjustable Brass Support for book rest, 5s. extra.

**DIRECTIONS FOR FIXING.**—Place the Clips round the bed-post, insert the Thumb-screw in the square hole at the end of same, and screw as tightly as possible. The Clips being of spring steel, they will fit any size post. A little cloth or wash-leather should be placed round the bed-post to prevent scratching the post.

**SAM<sup>L</sup>. CLARKE, "Pyramid" and "Fairy" Light Works, CRICKLEWOOD, LONDON, N.W.**

SHOW ROOMS—31 ELY PLACE, HOLBORN CIRCUS.





Gold Medal, Health Exhibition, London, 1884.



# BENGER'S FOOD,

REGISTERED.

(PANCREATISED, SELF-DIGESTIVE).



*For Infants, Children, and Invalids.*

*This delicious and highly nutritive Food is distinguished from others by the ease with which it can be digested and assimilated.*

It is recommended by the *Lancet*, *British Medical Journal*, and the whole of the Medical Press, and is well-known to the leading Medical men.

## *Extracts from Private Letters.*

"The infant was very delicate, and our medical adviser ordered your Food. The result in a short time was wonderful, the little fellow grew strong and fat, and is now in a thriving condition—in fact the 'flower of the flock.'"

"I am pleased to say that when every form of diet failed we were enabled to give Benger's Food and to see our children gain rapidly and permanently."

"My last little boy was fed entirely upon it from birth, and a healthier child it would be difficult to find. My wife sounds the praise of 'Benger's Food' everywhere."

*Tins, 1 6, 2 6, & 5/-, of Chemists, &c., everywhere.*

MANUFACTURERS—

Mottershead & Co. (S. Paine & F. B. Benger),  
7, EXCHANGE STREET,  
MANCHESTER.

# BENGER'S FOOD

may be obtained through all  
Wholesale Houses and Shippers,  
or direct from the Manufacturers.



# DRUGGISTS' CONFECTIONERY.

## ROBERT GIBSON & SONS,

Medicated Lozenge Manufacturers,

CARLTON WORKS, ERSKINE STREET, HULME, MANCHESTER,

1 Australian Avenue, London, and 44 Alter Wall, Hamburg.

### GIBSON'S SUPERIOR BOILED SUGARS

Have gained a High Reputation everywhere. FOR EXPORT TRADE. They are put up in 1-lb., 2-lb., and 5-lb. Bottles. Packed in Casks or in 1-doz. Cases as required, and delivered F.O.B. at any Port in England. These Sweets are absolutely pure. We specially recommend

Lime Fruit Tablets, Everton Toffy, Mixed Fruit Drops, Cough Drops, Raspberry Drops, Lemon Tablets.

### CACHOU PEARLS,

Musk, Rose, Mint, and other Flavours. In 1-lb. White Glass Bottles. Bottles free.

### COMPRESSED CHLORATE OF POTASH PELLETS, SACCHARINE PELLETS,

And PELLETS of every description, put up in 1-lb. White Flint Glass Bottles, with Boxwood Top Corks. Bottles not Charged.

## HIGH-CLASS LOZENGES

OF EVERY DESCRIPTION.

Chlorodyne Cough Lozenges, Chlorodyne Jujubes, Peppermint Lozenges,

In every variety of size and strength. Curiously Strong, and Multum in Parvo Mints give the utmost satisfaction. Medicated Lozenges of Pharmacopœia Strength.

DIGESTIVE TABLETS. VOICE AND THROAT LOZENGES for Singers and Public Speakers.

## ORIGINAL SUGAR WORM CAKES

Have an immense sale, both at home and abroad; will keep in any climate, and give entire satisfaction. Put up in Tins containing 3 doz., 6 doz., and 12 doz. cakes.

### THROAT HOSPITAL LOZENGES

(As per T. H. Pharmacopœia)

All Lozenges are sent out in 2-lb. and 4-lb. Bottles (*bottles free*), but allowed for if returned.

PROPRIETARY LOZENGES CAREFULLY PREPARED, STAMPED, AND CUT TO ANY SIZE OR SHAPE.

PRICE LISTS SENT ON APPLICATION.

E. C. RICH COMPANY, LIMITED, Agents, United States,

MR. THOMAS LAKEMAN, 34 Pitt Street, Sydney, for Australia.



# BENSON'S PLASTER.

Incomparably THE BEST; Quickest, Safest, & Most Highly Curative External Remedy ever Compounded.

They will positively cure ailments in a few hours which other Porous Plasters, Liniments, or Compounds require days and weeks of continuous wear and use to simply relieve.

For nearly thirty years physicians and consumers experienced two great objections to the use of Indiarubber porous strengthening plasters: First, their intolerably slow action, whereby days and weeks of continuous wear were found necessary to afford relief; and, secondly, their *failure to remove* ailments, owing to their being deficient in active and effective medicinal qualities. Numerous physicians, chemists, and pharmacists studied and experimented unceasingly to overcome these defects, without, however, achieving any marked results until Benson's Capcine Plaster was first prepared and introduced to the public by us. More than fifteen years have since elapsed, and during this period Benson's Plaster has met with unprecedented success and recognition in the United States, Great Britain, Canada, Australia, France, Germany, Spain, South America, and generally throughout the civilised world.

No other medicinal article for popular use has received so many positive and emphatic professional commendations from the highest sources as Benson's Plaster.

Nothing can be more convincing than the unbiassed opinions of medical and pharmaceutical experts, and of these over

## 5,000 PHYSICIANS, DRUGGISTS, AND CHEMISTS

of excellent reputation, representing the skill and intelligence of both branches of medical science, have voluntarily signed the following document:—

*"Messrs. Seabury & Johnson, Pharmaceutical Chemists, New York and London:*

Gentlemen.—For the past few years we have sold various brands of Porous Plasters; PHYSICIANS and the PUBLIC prefer

## BENSON'S PLASTER OVER ALL OTHERS!

We consider them one of the very few household remedies worthy of confidence. They are superior to all other Porous Plasters or medicine for external use."

When thousands who are competent to judge spontaneously endorse an article like BENSON'S PLASTER no further assurance is needed that they are founded on true medical skill. The proprietors can, however, further substantiate their claims as to the curative properties of the plasters by thousands of testimonials from those who have personally found relief in their use.

SEABURY & JOHNSON take pardonable pride in the fact that at

## FORTY-THREE INTERNATIONAL AND IMPORTANT EXHIBITIONS,

including those at Paris, Vienna, Amsterdam, Matanzas, Mexico, Melbourne, Toronto, Quebec, Montreal, New York, Philadelphia, Chicago, Cincinnati, New Orleans, Liverpool, Edinburgh, and Barcelona, they have received the highest awards, Gold and Silver Medals and Special Diplomas, over all European and American competitors for *Originality, Reliability, and General Excellence of Manufactures*. When it is remembered that the juries at these Exhibitions are composed of medical and pharmaceutical experts, far above all prejudice or bias, the supreme position in which their verdicts place the goods made by our house will be clearly inferred and understood.

As a protection both to the public and to ourselves, a special trade mark stamp, "*The Three Seals*," is attached to the face-cloth. Examine carefully when purchasing. Always ask for BENSON'S Plaster.

**SOLE MANUFACTURERS:**

# SEABURY & JOHNSON,

21 Platt St., NEW YORK; 46 Jewin St., LONDON, E.C.





# POTTER & CLARKE

(ESTABLISHED 1812),



BY APPOINTMENT.

5, 6, & 7 RAVEN ROW, ARTILLERY LANE, E.C. } **LONDON.**  
 VIADUCT HOUSE, FARRINGDON STREET, E.C. }  
 54 GREAT ANCOATS STREET, MANCHESTER.

## TRADE PRICE LIST OF NEW FLOWER SEEDS IN PENNY PACKETS.

PER **6/-** GROSS.  
 ON  $\frac{1}{2}$ -GROSS CARDS.



**SPECIAL  
 COUNTER  
 SHOW CASES,**  
 With Gold Lettering.

**12/-**

Containing 2 Gross  
 Assortment.

Price, Empty, 1/- ea.

Owing to the great success which has attended the sale of these Packets, the number of Sorts has this year been increased to 196.

We Guarantee the Seeds  
**NEW &  
 GENUINE.**

NAME.			Whole-sale Price.	NAME.			Whole-sale Price.	NAME.			Whole-sale Price.
No.	Per lb.	Per oz.		No.	Per lb.	Per oz.		No.	Per lb.	Per oz.	
1. <i>Aeroclinium alium</i> ..	..	3d.		30. <i>Candytuft, white</i> ..	1/2	3d.		59. <i>Erysimum Perowskianum</i> ..	1/4	3d.	
2. <i>Aeroclinium roseum</i> ..	..	3d.		31. <i>Candytuft, White Rocket</i> ..	..	3d.		60. <i>Eschscholtzia californica</i> ..	3/-	3d.	
3. <i>Adonis Flos</i> ..	1/6			32. <i>Canterbury Bell, mixed</i> ..	..	4d.		61. <i>Eschscholtzia crocea</i> ..	3/-	3d.	
4. <i>Ageratum, Imperial dwarf</i> ..	..	8d.		33. <i>Carnation, mixed</i> ..	..	6d.		62. <i>Eucharidium grandiflorum</i> ..	3/-	3d.	
5. <i>Ageratum Mexicanum</i> ..	..	4d.		34. <i>Chrysanthemum, double</i> ..	..	3d.		63. <i>Forget-me-not, blue</i> ..	..	2/-	
6. <i>Ageratum Mexicanum, white</i> ..	..	4d.		35. <i>Chrysanthemum segetum</i> ..	..	4d.		64. <i>Forget-me-not, red</i> ..	..	2/-	
7. <i>Alyssum saxatile, yellow</i> ..	..	4d.		36. <i>Chrysanth. tricolor Burridgei</i> ..	..	4d.		65. <i>Forget-me-not, white</i> ..	..	1/8	
8. <i>Alyssum, Sweet</i> ..	4/-	4d.		37. <i>Chrysanthemum tricolor, mixed</i> ..	..	3d.		66. <i>Forget-me-not, mixed</i> ..	3/-	3d.	
9. <i>Amarantus melancholicus rub.</i> ..	2/6	3d.		38. <i>Cineraria, choicest mixed</i> ..	..	—		67. <i>Gaillardia grandiflora, mixed</i> ..	..	1/-	
10. <i>Antirrhinum, fine mixed</i> ..	..	6d.		39. <i>Clarkia elegans rosea</i> ..	2/-	3d.		68. <i>Gaillardia picta Loreuziana</i> ..	..	8d.	
11. <i>Aster, China, mixed</i> ..	..	4d.		40. <i>Clarkia integrifolia</i> ..	2/8	3d.		69. <i>Gilia tricolor</i> ..	9/9	3d.	
12. <i>Aster, Crown or Cocardeau</i> ..	..	3/3		41. <i>Clarkia, mixed</i> ..	..	2/-		70. <i>Gloxinia, choice mixed</i> ..	..	—	
13. <i>Aster, Dwarf Chrysanthemum</i> ..	..	2/-		42. <i>Clarkia pulchella</i> ..	..	2/-		71. <i>Godetia, Bijou</i> ..	..	6d.	
14. <i>Aster, German, mixed</i> ..	..	8d.		43. <i>Clarkia pulchella alba</i> ..	..	3d.		72. <i>Godetia, Duchess of Albany</i> ..	..	9d.	
15. <i>Aster, German, white</i> ..	..	1/-		44. <i>Cockeomb</i> ..	..	2/-		73. <i>Godetia, Lady Albemarle</i> ..	..	6d.	
16. <i>Aster, Peony-flowered</i> ..	..	1/6		45. <i>Coleus, choice hybrid</i> ..	..	—		74. <i>Godetia, The Bride</i> ..	..	4d.	
17. <i>Aster, Violetta, mixed</i> ..	..	5/-		46. <i>Collinsia bicolor</i> ..	1/-	3d.		75. <i>Godetia Whitneyi</i> ..	..	4d.	
18. <i>Aubretia purpurea</i> ..	..	1/-		47. <i>Collinsia bicolor alba</i> ..	..	3d.		76. <i>Helichrysum brachyrhynchum</i> ..	..	4d.	
19. <i>Balsam, Camellia-flowered</i> ..	..	1/8		48. <i>Columbine, mixed</i> ..	..	3d.		77. <i>Helichrysum bracteatum</i> ..	..	4d.	
20. <i>Balsam, fine mixed</i> ..	..	9d.		49. <i>Convolvulus major</i> ..	1/10	3d.		78. <i>Helichrysum compositum</i> ..	..	9d.	
21. <i>Barton's, aurea</i> ..	..	3d.		50. <i>Convolvulus minor</i> ..	..	8d.		79. <i>Helichrysum mon. mixed</i> ..	..	10d.	
22. <i>Begonia, finest mixed</i> ..	..	—		51. <i>Coreopsis atrovirens</i> ..	..	3d.		80. <i>Heliotrope, finest mixed</i> ..	..	3/-	
23. <i>Calandrinia speciosa</i> ..	1/6	3d.		52. <i>Coreopsis Drummondii</i> ..	2/-	3d.		81. <i>Hibiscus africanus</i> ..	2/-	3d.	
24. <i>Calceolaria, choicest mixed</i> ..	..	—		53. <i>Coreopsis tinctoria</i> ..	2/4	3d.		82. <i>Hollyhock, double, mixed</i> ..	..	4/-	
25. <i>Calendula "Meteor"</i> ..	..	3d.		54. <i>Cyanus minor, mixed</i> ..	2/-	3d.		83. <i>Indian Pink</i> ..	..	5d.	
26. <i>Candytuft, carmine</i> ..	..	9d.		55. <i>Cyclamen, choicest mixed</i> ..	10/-	3d.		84. <i>Indian Pink, double</i> ..	..	8d.	
27. <i>Candytuft, dark crimson</i> ..	..	3d.		56. <i>Dahlia, single, mixed</i> ..	..	2/-		85. <i>Jacobs, mixed</i> ..	..	1/-	
28. <i>Candytuft, mix d</i> ..	1/6	3d.		57. <i>Daisy, Marguerite</i> ..	..	—		86. <i>Kaulfussia amellodites</i> ..	..	8d.	
29. <i>Candytuft, purple</i> ..	..	3d.		58. <i>Delphinium, mixed</i> ..	..	1/-		87. <i>Lantana, mixed</i> ..	..	6d.	



## Trade Price List of New and Choice Flower Seeds.—(Continued.)

NAME.	Whole-sale Price.	NAME.	Whole-sale Price.	NAME.	Whole-sale Price.
No. 88. Larkspur, Dwarf Rocket .. 3/-	3d.	No. 125. Nicotiana affinis .. 1/3	3d.	No. 161. Ricinus sanguinea .. 1/3	3d.
89. Larkspur, Hyacinth-d., mixed .. 4d.	4d.	126. Nigella damascena .. 3d.	3d.	162. Salpiglossis, mixed .. 10d.	10d.
90. Lavatera, mixed .. 4d.	4d.	127. Oenothera Drum. (Even. Primrose) .. 6d.	6d.	163. Sauvitalis procumbens, double .. 8d.	8d.
91. Leptosiphon densiflorus .. 4d.	4d.	128. Pansy, Emperor William .. 2/6	2/6	164. Saponaria calabrica .. 3/-	3d.
92. Leptosiphon densiflorus albus .. 6d.	6d.	129. Pansy, King of the Blacks .. 2/6	2/6	165. Saponaria calabrica, white .. 3/-	3d.
93. Leptosiphon, mixed .. 4d.	4d.	130. Pansy, large, French strain .. —	—	166. Schizanthus pinnatus .. 2/6	3d.
94. Leptosiphon roseus .. 6d.	6d.	131. Pansy, mixed .. 1/4	1/4	167. Silene pendula compacta .. 3/6	4d.
95. Limnanthes Douglasi .. 2/6	3d.	132. Pansy, Odier's .. 12/-	12/-	168. Silene pendula compacta, white .. 4d.	4d.
96. Linaria aparinoides splendens .. —	—	133. Pansy, pure white .. 3/-	3/-	169. Sphenogyne speciosa .. 4d.	4d.
97. Linum grandiflorum, blue .. 2/6	3d.	134. Papaver Danebrog .. 4d.	4d.	170. Stock, Brompton, mixed .. 4/-	4/-
98. Linum grandiflorum rubrum .. 2/-	3d.	135. Papaver nudicaule, mixed .. 8/-	8/-	171. Stock, Brompton, white .. 4/-	4/-
99. Lobelia speciosa .. 2/-	3d.	136. Papaver umbrosum .. 6d.	6d.	172. Stock, German Ten-week .. 2/-	2/-
100. Lobel's Catchfly .. 1/9	3d.	137. Pea, Everlasting, red .. 6/-	6d.	173. Stock, Ten-week, mixed .. 1/3	1/3
101. Love-lies-bleeding .. 1/-	3d.	138. Pea, Sweet, mixed .. per bus. 40/-	1/6 p. qt.	174. Stock, Virginian, mixed .. 1/4	3d.
102. Lupins, mixed .. per bus. 12/-	9d. p. qt.	139. Pentstemon, mixed .. 3/6	3/6	175. Stock, Virginian, Red .. 1/4	3d.
103. Lupins, yellow .. 12/-	9d.	140. Perilla nankinensis .. 2/-	3d.	176. Sunflower, tall .. 1/9	3d.
104. Lupinus nanus .. 2/6	3d.	141. Petunia, double .. —	—	177. Sweet Rocket .. 1/4	3d.
105. Lycbuis, scarlet .. 6d.	6d.	142. Petunia, fine mixed .. 10d.	10d.	178. Sweet Scabious, double dwarf .. 3d.	3d.
106. Malope grandiflora .. 1/6	3d.	143. Petuella grandiflora, mixed .. —	—	179. Sweet Sultan, mixed .. 6d.	6d.
107. Malope grandiflora alba .. 1/8	3d.	144. Petuella campanuliflora .. 2/-	2/-	180. Sweet William .. 2/6	3d.
108. Marigold, African .. 6d.	6d.	145. Plox Drummondii .. 12/-	1/-	181. Tagetes signata pumila .. 8d.	8d.
109. Marigold, Double Garden .. 1/4	3d.	146. Plox Drummondii grandiflora .. 1/6	1/6	182. Thunbergia, fine mixed .. 1/2	1/2
110. Marigold, French .. 4d.	4d.	147. Picotee, double, mixed .. 4/-	4/-	183. Tropæolum O (Canary Creeper) .. 1/-	1/-
111. Marvel of Peru .. 1/3	3d.	148. Pink, Pheasant's Eye .. 3d.	3d.	184. Tropæolum Lobbianum .. 1/4	4d.
112. Mntbiola bicoloris .. 4d.	4d.	149. Platystemon californicum .. 6d.	6d.	185. Venus' Looking Glass .. 2/6	3d.
113. Mignonette .. per cwt. 130/-	1/4	150. Polyanthus, mixed .. 4/3	4/3	186. Verbena, mixed .. 1/4	1/4
114. Mignonette, Giant Pyramidal .. 6d.	6d.	151. Poppy, Double Garden .. 3/-	3/-	187. Verbena, white .. 1/-	1/-
115. Mimulus maculosus .. 2/-	2/-	152. Poppy, Dwarf French .. 3/-	3/-	188. Violet, Sweet, The Czar .. 5/-	5/-
116. Mimulus moschatus (Mask) .. 8/-	8/-	153. Poppy, The Shirley .. 3/6	3/6	189. Viscaria cardinalis .. 3/6	4d.
117. Nasturtium, Tall, mixed, p. bus. 20/-	1/- p. qt.	154. Portulaca, mixed .. 8/-	8/-	190. Viscaria oculata .. 2/-	3d.
118. Nasturtium, Tall, scarlet .. 22/-	1/-	155. Primula sinensis, mixed .. —	—	191. Wallenbergia grandif. nana .. 1/-	1/-
119. Nasturtium, T. Thumb, mixed .. 1/4	3d.	156. Prince's Feather .. 1/3	3d.	192. Wallflower, blood red .. 6d.	6d.
120. Nasturtium T. Thumb, scarlet .. 1/6	3d.	157. Pyrethrum (Golden Feather) .. 18/-	1/6	193. Wallflower, mixed .. 6d.	6d.
121. Nasturtium, T. T. Empress of Ind .. 5d.	5d.	158. Pyrethrum rosenm, mixed .. 1/6	1/6	194. Zsa japonica variegata .. 1/9	3d.
122. Nemophila insignis .. 1/-	3d.	159. Rhodanthe maculata alba .. 1/6	1/6	195. Zinnia elegans, double .. 6d.	6d.
123. Nemophila insignis, white .. 1/3	3d.	160. Rhodanthe Manglesi .. 1/6	1/6	196. Zinnia elegans, mixed .. 2/6	3d.
124. Nemophila maculata .. 1/10	3d.				

Not less than half-a-dozen of any sort supplied, or less than half-gross in nil. Empty Pockets can also be supplied, price 1s. 6d. per 100, or 5d. per packet of 25. In lots of 500 of one sort, and upwards, 12s. per 1,000. Not less than 25 of one sort supplied. All kinds of Seeds in bulk at Current Wholesale Rates. Any prices not quoted above furnished on application. Special Discount to Wholesale Dealers.

# Per Gross. 6/ VEGETABLE SEEDS. 6/ Per Gross.

## IN PENNY PACKETS.

NAME.	Whole-sale Price.	NAME.	Whole-sale Price.	NAME.	Whole-sale Price.
No. 1. Artichoke, Green Globe .. 4/-	4/-	No. 36. Cucumber, Long Green .. 12/-	12/-	No. 71. Parsnip, Hollow-crowned, p. ct. 50/-	6d.
2. Artichoke, Purple Globe .. 5/-	5/-	37. Cucumber, Long Green Prickly .. 8/-	8/-	72. Radish, French Breakfast, p. bs. 50/-	1/3
3. Asparagus .. 2/-	2/-	38. Endive, Batavian .. 4/-	4/-	73. Radish, Long Scarlet .. 30/p. bus.	30/p. bus.
4. Asparagus, Giant .. 1/6	1/6	39. Endive, Green Curled .. 4/-	4/-	74. Radish, Mixed Turnip .. 32/-	32/-
5. Beet, Dwarf Red .. 2/-	2/-	40. Kale, Green Curled .. 2/6	2/6	75. Radish, Scarlet Olive-shaped .. 42/-	1/-
6. Beet, Silver .. 2/-	2/-	41. Kohl Rabi, Imperial .. 3/-	3/-	76. Rhubarb .. 2/-	2/-
7. Borecole, Dwarf Green Curled .. 2/6	2/6	42. Kohl Rabi, Large Purple .. 2/6	2/6	77. Sage .. 3/6	3/6
8. Broccoli, Early White .. 3/-	3/-	43. Leek, Broad Flag .. 1/6	1/6	78. Savory, Summer .. 2/6	2/6
9. Broccoli, Late White .. 4/-	4/-	44. Leek, Musselburgh .. 5/-	5/-	79. Savory, Winter .. 4/-	4/-
10. Brussels Sprouts .. 1/6	1/6	45. Lettuce, Cabbage .. 2/-	2/-	80. Savoy, Drumhead .. p. cwt. 200/-	2/6
11. Cabbage, Cocoa nut .. 3/-	3/-	46. Lettuce, Drumhead .. 2/-	2/-	81. Savoy, Dwarf Green Curled .. 200/-	2/6
12. Cabbage, Enfield Market .. 2/6	2/6	47. Lettuce, Tom Thumb .. 5/-	5/-	82. Spinach, Prickly or Winter .. 10 p. bus.	10 p. bus.
13. Cabbage, Large Drumhead .. 1/-	1/-	48. Lettuce, White Cos .. 3/-	3/-	83. Spinach, Round or Summer .. 12 p. bus.	12 p. bus.
14. Cabbage, Large York .. 2/-	2/-	49. Melon, Black Spanish Water .. —	—	84. Squash, Boston .. —	—
15. Cabbage, London Market .. 2/6	2/6	50. Melon, Green Round Water .. —	—	85. Squash, Early White Custard .. —	—
16. Cabbage, Nonpareil .. 2/6	2/6	51. Melon, Ice Cream Water .. —	—	86. Squash, Golden Bush .. —	—
17. Cabbage, Red Pickling .. 3/-	3/-	52. Melon, Jenny Lind Rock .. —	—	87. Squash, Hubbard .. —	—
18. Cabbage, St. John's Day .. 2/6	2/6	53. Melon, Large Rock .. —	—	88. Thyme .. 8/-	8/-
19. Cabbage, Very Large Early .. 3/-	3/-	54. Melon, Large Yellow Rock .. —	—	89. Tomato, Carter's Greengage .. 1/- p. oz.	1/- p. oz.
20. Capsicum, Large Bell .. —	—	55. Melon, Nutmeg Rock .. —	—	90. Tomato, Large Red Mammoth .. 6/-	6/-
21. Capsicum, Long Red .. 3/6	3/6	56. Melon, Pine Apple Rock .. —	—	91. Tomato, Pear-shaped, Scarlet .. 1/- p. oz.	1/- p. oz.
22. Capsicum, Long Yellow .. 6d. p. oz.	6d. p. oz.	57. Melon, Preserving or Pie .. —	—	92. Tomato, Red Cherry .. 1/-	1/-
23. Capsicum, Tree (Cayenne) .. 1s. p. oz.	1s. p. oz.	58. Melon, Red Seeded Water .. —	—	93. Tomato, Smooth Large Red .. —	—
24. Carrot, Altringham .. p. cwt. 100/-	1/6	59. Melon, Skillman's Netted Rock .. —	—	94. Tomato, Trophy .. 1/- p. oz.	1/- p. oz.
25. Carrot, Early Horn .. 140/-	1/6	60. Marjoram .. 6/-	6/-	95. Tomato, Yellow Plum .. —	—
26. Carrot, James' Intermedial .. 84/-	1/-	61. Mustard .. 18 p. bus.	18 p. bus.	96. Turnip, Early Stone .. p. cwt. 65/-	9d.
27. Carrot, Long Surrey .. 84/-	1/-	62. Okra, Dwarf Imperial .. —	—	97. Turnip, Nepal .. —	—
28. Cauliflower .. 10/-	10/-	63. Onion, Blood Red .. 4/-	4/-	98. Turnip, Red American .. 84/-	1/-
29. Cauliflower, Autumn Giant .. 16/-	16/-	64. Onion, Brown Globe .. 8/-	8/-	99. Vegetable Marrow, Custard .. 1/- p. oz.	1/- p. oz.
30. Celery, Superb Red .. 2/6	2/6	65. Onion, Brown Spanish .. 4/6	4/6	100. Vegetable Marrow, Green .. 4/-	4/-
31. Celery, Superb White .. 2/6	2/6	66. Onion, Deftford .. 4/3	4/3	101. Vegetable Marrow, White .. 4/-	4/-
32. Cress .. 14 p. bus.	14 p. bus.	67. Onion, James, Koeping .. 6/-	6/-	IN LARGE POCKETS.*	
33. Cress, Water .. 8/-	8/-	68. Onion, White Spanish .. 5/-	5/-	102. Beans, French Dwarf .. 18 p. bus.	18 p. bus.
34. Cucumber, Crystal White .. —	—	69. Parsley, Champion Moss .. 1/6	1/6	103. Beans, Scarlet Runner .. 22/-	22/-
35. Cucumber, Hardy .. 12/-	12/-	70. Parsley, Extra Curled, p. cwt. 112/-	1/3	104. Lawn Grass .. 14/-	14/-

\* These 10.- per gross.



THE ONLY  
PALATABLE NATURAL APERIENT WATER IS  
**"FRANZ JOSEF"**

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BOTTLED AT THE SPRING IN BUDAPEST, HUNGARY.

"FRANZ JOSEF" Water should be preferred to other because it is palatable, almost tasteless, liked by ladies and children the richest in cathartic salts, a smaller dose suffices, infallibly efficient without nauseous or griping effects.

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They are irresistible in the cure of all Chronic Catarrhal Affections, as Coughs, Colds, Bronchitis, Asthma, Irritation, Diphtheria, and Catarrh of the Stomach.

They are NATURE'S OWN MEDICINE, and contain neither drugs nor anodynes; may therefore be safely given even to children of tender age. Nobody, old or young, should ever be without them, their effect being equally wonderful as a



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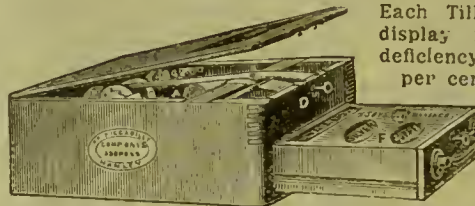
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Sales Checked for  
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AND

## "BOROUGH" KETCHUP.

### "BOROUGH" KETCHUP, WORCESTER, HARVEY, YORKSHIRE, OR READING SAUCE.

1d. Sample Bottles, dozen parcels	...	per gross	5/	extra quality	6/
" " $\frac{1}{2}$ gross boxes	...	"	5/6	"	6/8
1d. Giant Bottles, dozen parcels...	...	"	6/	"	8/
" " $\frac{1}{2}$ gross boxes	...	"	6/6	"	8/8
$\frac{1}{4}$ -Bottles (flat or round), reputed $\frac{1}{2}$ -pint	...	"	16/	"	24/
$\frac{1}{2}$ -Bottles (flat or round), reputed pint	...	"	26/	"	32/
$\frac{1}{2}$ -pint Imperial Round Stoppered Bottles	...	"	30/	"	38/
1-pint	...	"	50/	"	60/
12 $\frac{1}{2}$ -gallon Casks (casks free)	...	each	20/	"	32/

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IN 8-oz. SQUARE STOPPERED BOTTLES, 48/ PER GROSS.

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## ROBINSON'S LIEBIG'S BEEF WINE.

Composed of Liebig's Extract of Beef, Extract of Malt, and sound Port Wine.

### REPORT ON BEEF WINES.

From the results of my Analyses of various Beef Wines I have had occasion to examine, none have equalled as regards strength, purity of ingredients, and (of no less importance) the skillful and judicious manner in which the respective ingredients have been proportioned and combined, the Liebig's Beef Wine manufactured by Mr. B. ROBINSON, of Pendleton, Manchester.

It is in every sense a reliable preparation, embodying in a pleasing and palatable form all the acknowledged medicinal and nutritive properties pertaining to Liebig's Extract of Meat, Extract of Malt, and sound Port Wine.

WILLIAM ELBORNE, F.C.S., F.L.S.,

Lecturer on Materia Medica in the Owens College, Manchester (Victoria University).  
December 15, 1888.

Introduced 1855.]

## ROBINSON'S CONCENTRATED WATERS.

[Introduced 1855.

One Ounce of these Waters added to Forty Ounces of Distilled Water forms a clear Medicated Water (without filtering), similar in every respect to those prepared according to the directions of the British Pharmacopoeia, and free from all Chemical impurity. They will keep good any length of time in any climate.

Aqua Anethi. Concent., 4/ lb.	Aqua Cinnam. Ver. Concent., 6/ lb.	Aqua Fœniculi. Concent., 4/ lb.	Aqua Pimentis. Concent., 4/ lb.
" Anisi " 4/ "	" Cassia " 4/ "	" Menth. Pip. " 4/ "	" Rose " 8/6 "
" Camphoræ " 4/ "	" Flor. Aurant. " 8/6 "	" Ang. " 8/ "	" Rose Virgin " 10/6 "
" Carui " 4/ "	" Flor. Sambuci " 8/6 "	" Virid. " 4/ "	

The above are put up in Bottles of 1 lb. or 1 lb. and upwards, each of which has the Inventor's Protection Label over Cork.  
From the LANCET, July 15, 1882:—"CONCENTRATED WATERS (Robinson's, Pendleton, Manchester).—Among the samples sent to us we find Aq. Anethi, Anisi, Cinnam. Ver., Rose, and some dozen of others. Diluted with forty parts of water they form the ordinary waters of the Pharmacopoeia. They are excellent in quality, and will be very useful, especially in country practices. [1]

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## "RAMORNIE." LIEBIG'S Extract of Meat.

As supplied to the Admiralty, War, and India Offices.

1-lb. Jars..... per lb.	6/9	per doz.	81/0	2-oz. Jars..... per lb.	7/8	per doz.	11/6
$\frac{1}{2}$ -lb. Jars.....	7/0	"	42/0	1-oz. Jars.....	8/4	"	6/3
$\frac{1}{4}$ -lb. Jars.....	7/3	"	21/9	$\frac{1}{2}$ -oz. Jars.....	8/8	"	3/3

QUOTATIONS FOR EXTRACTION IN "BULK" ON APPLICATION.

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We are head-quarters for this Patented  
**LEMON JUICE EXTRACTOR**

Neatly packed in sub divided Boxes of one dozen.

**24/ per gross.**

Do not be deceived—every genuine Squeezer bears Easley's name and date of Patent.

No others in the Market will compare with these. A saving of 25 per cent. over any other process.

**2/ per dozen.**

## NEWTH'S BRITISH FURNITURE POLISH.

INTRODUCED 1838.  
*Superior to all other preparations  
for the purpose.*



In 3 Sizes.

In handsome Capsuled Bottles, 1/9, 3/3, and 6/6 per dozen.

UNRIVALLED  
FRENCH POLISH REVIVER.  
*Bottles enlarged and Improved.*

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Gelatine, Thick .. 75/- to 180/- per cwt.  
Thin.. 46/-, 52/-, 56/- to 300/-

## BROOKES' SOAP, "MONKEY" BRAND

SCOURS & POLISHES 2<sup>d</sup> A SMALL BAR

—ALL—

METALS,  
MARBLE,  
PAINT,  
GLASS,  
CROCKERY,  
CUTLERY,  
FIRE IRONS,  
GUNS,  
&

1000 THINGS IN HOUSEHOLD,  
SHOP & FACTORY.  
**WONT WASH CLOTHES.**

In Cases of 100 large Bars, 25/-; in Cases of 60 large Bars, 15/-; in Boxes of 48 small Bars, 6/3  
Free London or Bristol. Packages and Showcards free. Special arrangements with Shippers and Merchants.

"HERBERT'S" GLUE POT.  
(Of which we are Manufacturers and Sole Proprietors.)



Saves 50 Times its Cost.  
Filled with Good Firm Adhesive Glue.  
No House, Office, or Shop should be without it.  
Counter Boxes of 1 dozen, 3/6.

SPECIAL PURCHASE—  
EIGHT THOUSAND DOZEN

Genuine Russian Hemp Laid Cord.  
Very Strong. In 2 sizes, middle & large.



4, 8, 16, and 32 oz. Balls. 6/ per dozen lbs.

## ASPINALL'S ENAMEL

SALES  
INCREASING.



180 COLOURS  
IN STOCK.

ORDERS EXECUTED ON RECEIPT.

Prices in no case higher than the Manufacturer or other Wholesale Dealers. Every kind in Tins and per gallon supplied upon receipt of order.

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THIS FIXTURE,  
4/6  
per dozen.

Perforated Paper,  
Superior.  
100 Rolls, 37/6;  
46 per doz.

Seconds,  
100 Rolls, 28/-;  
36 per doz.

Extra Quality Perforated, cases of 100 rolls, 48/-; per dozen, 5/6.

Extra Super Quality, cases of 100 rolls, 56/-; per dozen, 7/-.

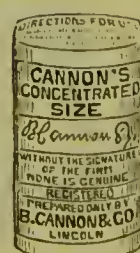
All our Paper is guaranteed 12-oz. Rolls.

Special lot of 100 Cases, perforated 12-oz. rolls, 25/- per Case. Sample dozen rolls, 3/-.

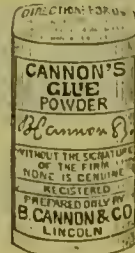
## GLUE

Town Glue ..	30/-, 36/-, 42/- per cwt.
Scotch ..	48/-, 52/-, 56/-, 62/-
French Medal ..	33/-, 35/-, 38/-, 42/-
Country, Thin Pale ..	36/-, 42/-, 48/-, 55/-
Common Plasterers' Glue ..	20/-, 24/-

## SIZE & GLUE POWDER.



Cannon's is the Best.



In 4, 8, 16 oz.; 2, 4, and 7 lb.; 23, 56, and 112 lb. Cases.

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KING'S CROSS,



Telephone Number, 1852.

Telegraphic Address—CHEMICUS LONDON.

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Apollinaris  
Barnett and Foster  
Obenish's Aerated Waters  
Association.  
Ellis (Kathlin)  
Frauz, Josef  
Hassall and Co. (Oleic Acid  
Phospho)  
Hay, W.  
Idris and Co.  
Jewsbury and Brown  
Kimmond and Co.  
Mills and Co. (Bourne)  
Taylor, T. and P. J.  
(See GINGERS ALA.)

## DITTO PLANT

(See STYRONS AND ESSENCES.)  
Barnett and Foster  
Brady and Hinohlife (Ld.)  
Egrot  
Fayarger and Co.  
Fevre, E.  
Gueret Freres  
Prudon and Dubost  
Tylor, Hayward, and Co.

## ACETIC ACID

Dunn and Co.  
Fuerst Bros.  
Morris and Callard (Salis)

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Howards and Sons (Cinchona)  
Smith, T. and H. & Co.  
Acad, Ed.  
Australian Drug Co.  
Bosley  
Cooking and Co. (Japan)

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(Melbourne)  
Fougera and Co. (New York)  
Kempthorne, Prosser & Co. N.Z.  
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Levy, Jules  
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Penske, Allen and Co.  
Prosser, Taylor and Co.  
Rich, E. G., Co.  
Roberts (Paris, &c.)  
Eckco, Tompsett and Co. (Mel-  
bourne)  
Sharland and Co.  
Soul, W. H., and Co.

## AMMONIA

May and Baker.  
Whilo, A., and Sons  
Woolley, Sons and Co.

## APPARATUS

Clarke, S. (Food Warmer and  
Boe Tray)  
Egrot  
French Nickel Manufacturing  
Co.  
Letcher, J. T. (Scientific)  
Ormo (Scientific)  
Perken, Son and Rayment  
Telbult, F.  
Wedgwood & Sons (Mortars)

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Bailey, W. H., and Son  
Robinson and Sons  
Seabury and Johnson

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Pattison, G.  
Rawkin and Sons (Cork mats)  
Solpott Bros.

## BAKING POWDER

Goodall, Backhouse & Co.

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Bowdlear, W. H., and Co.  
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Works

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Brunner, Mond and Co., Lim.  
Howards and Sons  
May and Baker

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Hewlett and Sons  
Howards and Sons  
May and Baker  
Synes and Co.  
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Lincoln and Midland Counties  
Drug Co.

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Burgess, Dr.  
Lewis, H. K.  
Muter, Dr.

## BOTANIC BEER

Nawball and Mason

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Dukas and Co.  
Fordham, W. B., and Sons  
(Lim.)  
Kent, G. B., and Sons  
Mowley David and Sons

## BOTTLE CAPPING

Bonch, J., and Sons

## BOTTLES

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Barnett and Foster  
Barrett, R. H.  
Brady and Hinohlife (Ld.)  
Gilbertson, H., and Sons  
Horn, E. A., and Co.  
Inance and Co.  
Kilner Bros.  
Potho, H., and Co.  
Sanders, H. G., and Son  
Shirley, A. W.  
Thompson, Walters, Hole and  
Co. (Lim.)  
Toogood, W.  
Youldon, E.

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Austin and Co. (Cardboard)  
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Owen, J., Jr.  
Parmenter, I. W. & Co. Lim  
Robinson and Sons

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Oldfield, Paterson and Co.  
Hearon, Squire, and Francis

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Fuerst Bros.  
Howards and Sons  
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May and Baker [Pathio]

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Sanders, H. G., and Son

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Ferris and Co.  
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May, Roberts and Co.  
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Sanger and Son  
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Co. (Lim.)

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White A., and Sons

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Pattison, G.  
Solpott Bros.  
Thompson, Walters, Hole and  
Co. (Limited)  
Wood, Vincent

## CHEMICALS

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Boehringer, C. F., and Sohne  
Stramwell and Son  
Brunner, Mond and Co., Lim.  
Bush, W., Son and Co.  
Dunn and Co.  
Fletcher Fletcher and Ste-  
venson  
Fuerst Brothers  
Goodall, Backhouse and Co.  
Graft, R. W., and Co.  
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Clarke  
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Lorrenz, H.  
May and Baker  
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Moss and Co.  
Frank, Davis and Co.  
Storn, G. and G. (Pumilins)  
Smith, T. and H., and Co.  
Tyke and Kline  
White, A., and Sons  
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Rowland, L.

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Burroughs, Wellcome and Co.  
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Government Sanitary Co.  
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Wright, Layman and Umney  
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## CITRIC ACID

Hassall (Phosphol)

## COCAINE-HYDRO.

Boehringer, C. F., and Sohne  
Howards and Sons

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Armbrucht, Nelson and Co.  
French Hygienic Soc.

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Fry and Sons  
Rowntree and Co.  
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Lofthouse and Saltmer  
Oppenheimer Bros. and Co.  
Smith, T. J.  
Woolley, Sons and Co.  
Wright, Layman and Umney

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Symington and Co. (Coffee  
Essence)

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Brooks, Peel and Co.  
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Slyon, Astley and Co.  
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Hooper, B., and Co.  
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Fascall, J.  
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Thompson, M. F.  
Young, H.

## COTTON WOOL

Haynes, G. & Co. (Absorbent)  
Robinson and Sons (Abernt.)  
Sanger, J., and Sons  
Seabury and Johnson

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Mumford, G. S.

## CYDER

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Lewsbury and Brown  
Kennedy, The Co.  
Lakeman, J. J.  
Newbery and Sons  
Reoh, H.  
Sutton, O., and Co.  
Thompson and Capper  
Warwick Bros.  
Woods, W. (Araea Nut)  
Wright, C., and Co.

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Carter, J. H.

## DOG MEDICINES

Verrate (Patent)

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Government Sanitary Co.  
Hamilton and Co.  
Jays' Sanitary Compounds  
National Chemical Co.  
Seabury and Johnson  
Saults Co.

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Bailey, M., and Co.  
Barclay and Sons (Limited)  
Davy, Humphrey, & Co.  
Evans, Lecher and Webb  
Evans, Sons, and Co. (Savara)  
Gilbertson, H., and Son  
Hill, A. S., and Son  
Hockin, Wilson and Co.  
Iaris and Co.  
Kay Bros. Lim.  
Lynch and Co.  
Marriot, E., and Co.  
Maw, Son and Thompson, S.  
May, Roberts and Co.  
Quech, H. C.  
Rai kin, W., and Sons  
Sanger and Son  
Schulze and Co.  
Still, W. M., and Co.  
Thompson, Walters, Hole and  
Co. (Lim.)  
Toogood, W.  
Wood, Vincent

## DYES

Ayrton and Saunders

## EAU DE COLOGNE

Farina, J. M.

## ELASTIC HOSIERY

Wood, V.

## ELECTRIC APPAR.

Berry, F. H.  
Darton, P., and Co.  
Gent and Co.  
Orme and Co.

## EMBRICATION

Clarkson, A., and Co.  
Elliott, Sons and Co.

## ENAMEL

Fordham, W. B., and Son

## ENEMAS

Ingram and Son  
Sanger and Son  
Thompson, Walters, Hole and  
Co. (Lim.)

## ENGRAVERS

Barker, W., and Son  
Corsun, J. E. (Glaes)

## ENVELOPES

Macchabau and Co.

## ESSENCES

Beckett, W.  
Brady and Hinohlife (Ld.)  
Burgoyne, Burbridge and Co.  
Bush, W. J., and Co.  
Gummock, J.  
Fitzsimmons and Fearnley  
Goodall, Backhouse and Co.  
Hay, W.  
Idrie and Co.  
May and Baker  
Oldfield, Fitchinson and Co.  
Stevenson and Howell  
Tyler, P. (Anchovie)  
Woolley, Sons and Co.

## ESSENTIAL OILS

Bush, W., Son and Co.  
Cocking (Japan Peppermint)  
Gummock, J.  
Duckworth and Co.  
Evans, Sons and Co.  
Fitzsimmons and Fearnley  
Fratelli De Pasquale and Co.  
Hodgkissons, Treacher and  
Clarke  
May and Baker  
Stevenson and Howell  
Synes and Co.  
Tombaret Freres  
Trent, R. O.  
Warwick Brothers  
Wright, Layman and Umney  
Vogt, G., and Co.

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Claudon, G.  
Duncan, Flockhart and Co.  
Howards and Sons  
May and Baker  
Robline, J., and Co.  
White, A., and Sons  
Woolley, Sons and Co.  
Wright, Layman and Umney

## EUCALYPTUS

Downie B. I. P. Co.  
Tucker, J., and Co.

## EXTRACTS, FLUID

Allen and Haulbury  
Barber, G., and Co.  
Burgoyne, Burbridge and Co.  
Evans, Sons and Co.  
Fletcher, Fletcher & Stevenson  
Hearon, Squire and Francis  
Hooper, B., & Co.  
Moss and Co.  
Potter and Clarke  
Wright, Layman and Umney

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Australian Meat Co.  
Bovril (Limited)  
Brand and Co.  
Brown, Hango, and Co.  
Deneys's Peptone Co.  
Liebig Co.

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Food)

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Now ready, with latest ascertained corrections to 4 March, 1890.



John Newbery receiving Oliver Goldsmith in the introduction of Dr. Johnson.

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Beef Essences .....	12	Disinfectants .....	26	Plate Powders .....	16
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Calvert & Co.	Osborne, Bauer & Co.	Vaseline (Chesebro' Co.)
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Crosby & Blackwell	Popper & Co.	Whitaker & Grossmith
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NEWBERY LONDON



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## FRENCH ESSENCES.

In PLAIN STOCK BOTTLES of 20 oz., 10 oz., and 5 oz.

£ s. d.

Ess. Bouquet .. .. .	} per 20 oz.,	0 8 7
Frangipane .. .. .		
Jasmin .. .. .		
Jockey Club .. .. .	} per 10 oz.,	0 4 4
Millefleurs .. .. .		
New Mown Hay .. .. .		
Opoponax .. .. .	} per 5 oz.,	0 2 3
Patchouli .. .. .		
Rondeletia .. .. .		
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Ylang Ylang .. .. .		

The above are the leading Essences, and to these the special attention of customers is asked. Those who desire greater variety will find in "Newberry's Catalogue" a more extended list.



Violets	..	..	..	..	} per 20 oz.,	0 11 3
Wood Violet	..	..	..	..		
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Eau de Cologne	..	..	..	..	} per 20 oz.,	0 4 4
Lavender Water	..	..	..	..		
				" 10 "	" 10 "	0 2 3
				" 5 "	" 5 "	0 1 2

Berdoe's Perfumes, in Handsome Show Bottles for the Counter, Rose Cut Stoppers, Vitrified Opal Shield Labels with Gold Border and Black Letters, from 11s. 6d. each.

Established A.D. 1746.

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Suitable for Retail Sale, in screw-capped Pill Tubes. Not liable to Stamp Duty unless specially recommended or sold as "Proprietary."

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Aloin, 1-10 gr.; Podophyllin, 1-5 gr.; Ext. Hyoscy., 1-20 gr.; Jalapin, 1-10 gr.; Ext. Nuc. V. m., 1-20 gr.; Ol. Res. Capsici, 1-20 gr.  
Dose 1 to 4.

Per 1,000, in Plain Bottle, 4/-.

Per Small Stoppered Vase, with painted glass label, 5/6.

Per Stoppered Vase, with painted glass label. (5,000.) 21/-.

An "a 1-round" Antibilious Pill, which has found favour wherever introduced, is "No. 120" ("Pil. Cathartic and Liver").

No. 120 Pil. Cathartic and Liver.

R. Podophyllin, 1/4 gr.; Ext. Colocynth, 1/4 gr.; Pv. Soc. Aloes, 1 gr.; Pv. Scammony, 1/4 gr.; Pv. Saponia, 1-8 gr.; Ext. Hyoscyami, 1-8 gr.; Gingerine, 1-8 gr. Dose, 2 to 4 pills as a purgative, 1 to 2 pills as an aperient.

Per 1,000, in Plain Bottle, 4/-.

Per Stoppered Vase, with painted glass label, 6/4.

Per Bottle (Bulk) of 5,000, 18/9.

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Put up in 1d., 3d., and 6d. Packets.

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AND SHAPES OF BOTTLES, FLASKS, JARS,  
&c. &c.

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The increasing demand for these celebrated Smelling Salts has induced the Proprietor to bring them out in a more portable and elegant form than hitherto supplied. The New-shaped Bottles will be found well worth the attention of the Trade.

WHITE FLINT GLASS, Handsomely Cut, 4 Sizes, Retail .. .. . 6d. 1/6, 2/4, 2/6  
" " " Watch Shape, for the Pocket, 3 Sizes, Retail.. .. . 1/4, 1/6, 2/4

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SMELLING SALTS.—The MONOCARBONATE OF AMMONIA, manufactured by ALFRED ALLCHIN, is the Neutral Salt so much valued for the preparation of Smelling Salts. It retains its pungency as long as any Salt remains. 1 lb. bottles, 2s. 8d. each.  
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PUNGENTS, with handsome Cut Stoppers, filled with Allchin's Smelling Salts, 8s. per doz.; retail, 1s.

OL. ROSÆ. CONCENT.—One ounce of this Concentrated Solution of Anchusine, mixed with two pounds of Oil, will give it the natural colour; it is also admirably adapted for colouring Pomades, Lip Salve, Camphor Balls, &c. 4s. per lb.

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Sole Proprietors—

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TO BE HAD OF ALL THE WHOLESALE HOUSES.



## TURNED METAL FLASK & BOTTLE CAPS

For Spirits, Oils, Perfumes,  
Salts, &c.



[2]

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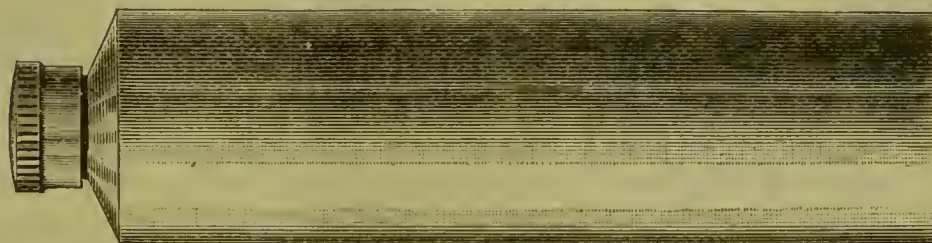
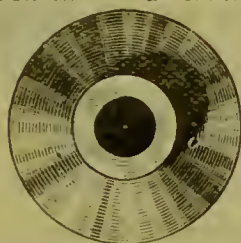
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## METALLIC COLLAPSIBLE TUBES FOR PAINTS,

Perfumes, Shaving Creams, Soaps, Oils, and all Fluid or Semi-Fluid Substances.

FOR CREAMS & SOAPS.



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[3]

ESTABLISHED 1820

## PERFUME SPRINKLERS,

ALSO FOR

HAIR WASHES, CREAMS,  
OILS, INKS,  
&c.

[1]



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METAL BOTTLE CAPS  
AND  
SCREWED BOTTLES.

For Paints, Perfumes, Soaps, Creams, Oils, and all Fluid  
or Semi-Fluid Substances.

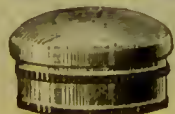
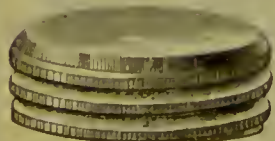
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AND  
BOTTLES.

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[4]



[5]



# A NEW SYSTEM. SUSPENSORY BANDAGES

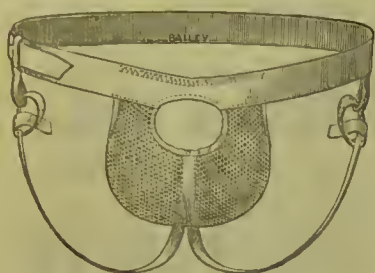


FIG. 1.

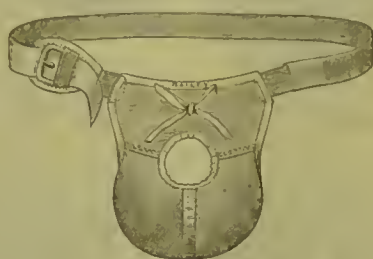


FIG. 2.

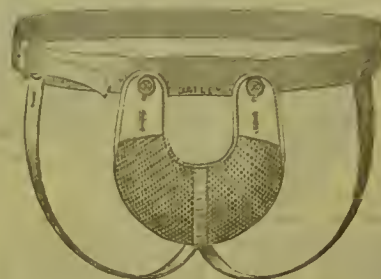


FIG. 3.

Everyone knows the trouble and difficulty attending the sale and fitting of Suspensory Bandages, and everyone knows, too, the impossibility of repeating an order with certainty and satisfaction.

## W. H. BAILEY & SON HAVE SIMPLIFIED THIS.

Their Suspensory Bandages are all numbered, and each one in a separate box, and marked so as to show the kind of bandage and the size of the bag. The various kinds (as per list below) are made in 3 sizes:—

A denotes Small Size Bag.

B „ Medium or Ordinary Bag.

C „ Large Bag.

No unpacking for comparison, no confusion, trouble, and consequent soiling of the goods are necessary. If one is not suitable, a larger or smaller one can at once be given, and when suited the kind and size, such as 2 A, 4 B, &c., can be registered for future orders.

## THE SMALLEST STOCK CAN THUS BE COMBINED WITH THE GREATEST VARIETY

No. 1.	Cotton Bags and tape under- straps, as Fig. 1...	...	...	...	...	...	...	per doz.	8
„ 2.	Cotton Oxonian, with drawing strings to contract the bags, as Fig. 2 (Sell well)	...	...	...	...	...	...	„	10
„ 3.	Silk Bags and tape under- straps, Fig. 1	...	...	...	...	...	...	„	20
„ 4.	Silk Oxonian, with drawing strings to contract the bags, Fig. 2 (Sell well)	...	...	...	...	...	...	„	18
„ 5.	Silk Oxonian, bags bound with elastic, Fig. 2...	...	...	...	...	...	...	„	24
„ 6.	Silk Oxonian, superior quality, bands of buff jean, with drawing strings to contract the bags	...	...	...	...	...	...	„	24
„ 7.	Silk Bags to button on, with tape under- straps	...	...	...	...	...	...	„	22
„ 8.	As Fig. 3, silk bags to button on, with under- straps to button	...	...	...	...	...	...	„	24
„ 9.	Silk bags to button on, with under- straps, bands and under- straps entirely of silk elastic, 1½ in. wide...	...	...	...	...	...	...	„	33
„ 10.	The American Army Suspenders, bands of elastic web, fine silk bags, bound with elastic, bags to button to band	...	...	...	...	...	...	„	30

The prices are LOW. The make OUR OWN—superior.

MANUFACTURED BY

# W. H. BAILEY & SON,

*Wholesale Truss and Surgical Appliance Manufacturers,*

**38 OXFORD STREET, LONDON.**

WHOLESALE CATALOGUE AND TERMS ON APPLICATION.



# TYRER'S MENTHOL

GOOD  
VALUE



FIG. A.

COMPARE



FIG. B.

WITH OTHERS



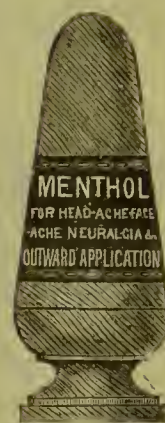
BOTTLE.

FOR BEST



VASE.

VALUE.



PEDESTAL.

## TYRER'S SPECIAL LINES.

1d. { Bottle, Pedestal, or Vase } 6/- per gross. | 2d. { Fig. A., Stained, and Fig. B., Varnished } 12/- per gross

1d. and 2d. on  $\frac{1}{4}$ -gross beautiful Show Cards, WITH ELASTIC.

3d. { Fig. C., Barrel, Polished Willow ..... 18/- per gross. Fig. F., Draughtsman, Stained and Varnished ..... 16/- .. }



FIG. C.



FIG. D.



FIG. E.

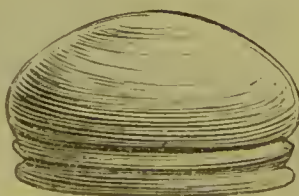


FIG. F.



FIG. G.



FIG. H.

Fig. D.—Small Glass Dome, Boxwood foot, 1/9 per doz.

„ D.—Medium „ „ Enamelled „ 2/6 „

„ D.—Large „ „ Boxwood „ 4/- „

„ E.—Splendid value, Boxwood Screw .. 3/- „

Fig. F.—Draughtsman, Boxwood Screw .. 2/9 per doz

„ G.—Acorn, medium, „ „ 2/10 „

„ G.— „ large, „ „ 5/3 „

„ H.—Barrel, extra large „ „ 5/6 „

Other shapes and sizes quoted for, and I guarantee to give the very best value that money can procure.

Write for free samples, and compare my quality, weight, and prices with any in the Market, then judge.

**PETER TYRER, LONG LANE, BOROUGH, LONDON, ENGLAND.**



# PARRISH'S

"SYRUP FERRI PHOSPH. CO.  
LORIMER."

## GOLD MEDAL

## CHEMICAL FOOD.

OVER 100 TONS SOLD ANNUALLY

(MOSTLY IN ORIGINAL BOTTLES).

PREPARED FROM THE INVENTOR'S FORMULA.

*Approved by an International Medical Jury, Calcutta, 1884,*

AND

AWARDED A SPECIAL GOLD MEDAL AS "PARRISH'S."

It is the only Chemical Food which has received an Award, although most other Makers competed for honours either at Calcutta or London, 1884.

The demand for Gold Medal Chemical Food steadily increases, and our Chemist Friends double their repeat orders, and find the sale a profitable and creditable means of revenue, entirely replacing the common and high-priced kinds.

$\frac{1}{2}$ -lbs., 7/6; 1-lbs., 12/- dozen. Abundance of Handbills with each order.

SOLE PROPRIETORS, LORIMER & CO.

# LORIMER'S

"SYRUP HYPOPHOSPH. CO.  
LORIMER'S."

## HYPOPHOSPHITES.

NEUTRAL or very slightly alkaline.

DEFINITE, Original, and stated Formula (*see Label*).

PERMANENT. Does not deposit its active ingredients.

PRICE MODERATE. Deserving and receiving the support of the Medical Profession.

Sold in Bottles,  $\frac{1}{2}$ -lb. and 1-lb., 24/- and 42/- per doz. Unstamped, for Dispensing, 21/- and 36/- per doz.

WRITE FOR PRICE LIST OF LORIMER'S SPECIALTIES.

LORIMER & CO., BRITANNIA ROW, LONDON, N.



# SALEABLE GOODS.

LONDON.]

MARCH 22.

[1890.

It is the desire of every progressive chemist to stock those goods most likely to be inquired for, or most readily sold upon introduction. We offer special facilities to chemists who take an interest in pushing the sale of our improved pharmaceutical products. These goods are already well known to the medical profession, and it may be decidedly of advantage to the chemist to stock a sufficient supply ready for sale. We are always willing to exchange goods of our manufacture which do not readily sell, for those more generally in demand. We also supply chemists, stocking our preparations, with literary matter of a first-class kind, the chemist's name being printed thereon of free charge.

The following preparations are generally well known to chemists, and are very largely prescribed:—

## FAIRCHILD'S PURE DIGESTIVE FERMENTS



Are absolutely free from admixture with any of the extraneous matter usually employed as diluents to increase bulk. The pepsin in scales and powder is well worth the attention of chemists desiring to dispense a ferment capable of exerting a maximum amount of proteolytic activity.

Pure Pepsine in Scales or Powder is supplied to the trade in  $\frac{1}{2}$  oz. bottles at 20/ per doz.; 1 oz. bottles at 60/ per doz.

## BEEF AND IRON WINE (Burroughs)

Is an admirable stimulating tonic and food. Each fluid ounce contains the equivalent peptone value of two ounces of fresh beef, with four grains of iron citrate. This preparation is palatable, and is readily taken by children and invalids. It keeps well, and when introduced commands a ready sale.

Supplied to the trade in  $\frac{1}{2}$  lb. bottles, 22/ per doz.; 1 lb. bottles, 42/ per doz.



## ZYMINE PEPTONISING POWDERS.

Put up in corked glass tubes, each containing sufficient pancreatic ferment and alkali to predigest a pint of milk or beef-tea, if kept at a temperature of 100° F. for half an hour.

"Its introduction has probably done more than any other therapeutic measure of recent times to lessen infant mortality."—*British Medical Journal*.

Boxes each containing 1 doz. tubes, 18/ per doz. boxes.



The Tabloids of Pepsin, Zymine, and Zymine Comp. are much appreciated by the medical profession as food aids in dyspepsia. A small bottle containing 25 or 100 tabloids of either kind may be conveniently carried in the waistcoat pocket.

These preparations are supplied to the trade as follows:—Zymine (Pure Pancreatin),  $\frac{1}{2}$  oz. bottles, 20/ per doz.; 1 oz. bottles, 60/ per doz. Zymine Tabloids, bottles of 25, 18/ per doz.; bottles of 100, 48/ per doz. Zymine Comp. Tabloids, 25 in bottle, 18/ per doz.; 100 in bottle, 48/ per doz. Pepsin Tabloids, 25 in bottle, 14/ per doz.; 100 in bottle, 42/ per doz.



## LAWTON'S ABSORBENT COTTON.



Is absolutely pure, cellulose, snowy white in appearance, and free from any irritating substances. It will absorb fourteen times its own weight of blood or water.

Supplied to the trade in 1 oz. packets, 4/6 per doz.; 2 oz. packets, 8/ per doz.; 4 oz. packets, 12/6 per doz.; 1 lb. packets, 36/ per doz.

## DIALYSED IRON (WYETH).

Is the chalybeate preparation of iron so highly recommended by Dr. Protheroe Smith. It is not acid, will not injure the teeth or disagree with the stomach.

"A perfect preparation, it is often taken without difficulty when other forms are not well borne."—*The Lancet*.

4 oz. bottles with dropper, 27/ per doz.; 1 lb. bottles, 42/ per doz.



## HAZELINE.

The active principles distilled from the green leaves and twigs of the *Hamamelis Virginica*. It is a very elegant and active product. Considering the active principles of the plant to be chiefly of a volatile nature, it will be understood that Hazeline more nearly represents the entire therapeutic value of the drug than any other preparation of its kind. Hazeline keeps well, and for satisfactory physiological action has acquired a good reputation. Dr. Ringer speaks highly of the employment of Hazeline as a hæmostatic in his work on therapeutics.

The *Lancet* says:—"It has undoubtedly the power of arresting many forms of hæmorrhage, and is extensively employed in bleeding piles."

The *British Medical Journal* says:—"It is much used in the treatment of catarrh."

$\frac{1}{2}$  lb. bottles, 14/ per doz.; 1 lb. bottles, 42/ per doz. Veterinary Hazeline, 1 lb. bottles, 33/ per doz.





## SALEABLE GOODS—Continued.

### HAZELINE CREAM (Ointment).

Is an excellent substitute for Cold Cream; being prepared with Lanoline it will not turn rancid, and is pleasantly emollient and soothing to rough or excoriated surfaces.

Supplied to the trade in 2-oz. glass jars at 14s. per dozen.

### THERMO-SAFEGUARD FEEDING BOTTLE (B. W. & Co. Patent).

This scientific improvement upon the ordinary patterns of bottles employed in the artificial feeding of infants, is fitted with a thermometer embedded in the glass, which immediately registers the temperature of the food; it is also graduated in ounces, enabling the nurse to regulate the amount of food to be given at each time, and ensuring the administration of the food at an equable temperature.

The prices of these bottles are not higher than those for ordinary feeding bottles, while they possess the advantages already described.

Supplied to the trade, No. 1, 9s. per dozen; No. 2, 12s. per dozen; No. 3, 22s. per dozen.

### THE PORTABLE MENTHOL INHALER.

This is composed of an electroplated case, within which is fitted (upon supports) an *incorrodible* metallic tube containing a coil of absorbent paper-fibre lint, upon which the medicament (menthol or other volatile inhalant ordered by the physician) is dropped; the vapour may be then easily inhaled.

The case complete may be conveniently carried in the waistcoat pocket.

Supplied to the trade, complete with solution of menthol and throat brush, at 30s. per dozen.

### VEREKER IMPROVED CHLORIDE OF AMMONIUM INHALER.

"The neutral vapour of Chloride of Ammonium removes unhealthy and offensive secretions, and restores the long diseased or weakened nasal and respiratory mucous membrane to a healthy state. Its employment is especially serviceable in cases of catarrh, where thickening, induration, and irritation exist, a most decided improvement being brought about in a short time." In pharyngeal irritation, relaxation and weakness of the throat, it acts as a most effective alterative and tonic to the mucous membrane.

This is the *only* inhaler which yields *perfect by neutral fumes* of ammonium chloride vapour.

Dr. FRANKS, Dublin University, says:—"It is the best I have ever used, and I think I have tried all."

Dr. SAVILE, Ex-Pres. Royal College of Surgeons, Ireland, says:—"It is the best Inhaler for Chloride of Ammonium I have met with."

Supplied to the trade at 5s. each. Retail 7s. each.

### GLYCERINE SUPPOSITORIES (B. W. & Co.)

These are hollow cones of Cocoa Butter, filled with Glycerine, each being sufficient to cause peristaltic action and produce an ordinary defecation. The suppositories are rapidly superseding the use of glycerine injections, being much more cleanly and convenient.

Supplied to the trade in boxes, each containing 1 dozen, 22s. per dozen boxes.

### ARTIFICIAL ANTISEPTIC EAR DRUMS (DR. WARD COUSIN'S).

Are very highly recommended for the relief of deafness caused by perforation of the tympanum. The artificial drums are prepared from compressed antiseptic cellulose, coated with plastic collodion. The drum is flesh-coloured, and being extremely light cannot be readily seen, or cause inconvenience when *in situ*.

### LANOLINE (LIEBREICH).

#### The Natural Basis for Ointments.

Is the natural fat of the skin.

It will not turn rancid.

It does not "run" like ordinary ointment bases.

It acts as a perfect *protective* dressing for excoriated surfaces.

It is devoid of any hard crystalline matters.

It is compatible with all medicaments employed for making ointments.

If found too adhesive it may be thinned down to any extent with vaseline, almond or olive oil.

It retards the rancidity natural to glycerine fats.

### LANOLINE COLD CREAM.

Is a plastic emollient cream which is readily absorbed by the skin, rendering it smooth, soft, and elastic.

### LANOLINE POMADE.

Being the *natural nutrient material* of the hair, it is found efficient in retarding the inclination to baldness natural to senile decay or disease.

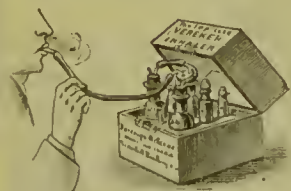
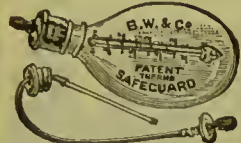
### TOILET LANOLINE.

Is a pleasantly perfumed emollient cream, especially adapted for use after shaving, and for chaps or excoriations.

### LANOLINE TOILET SOAP.

Contains free lanoline, which tends to maintain a healthy condition of the skin, preventing chaps, roughness or irritation after washing in hard water or exposure to weather, &c. This soap is pleasantly perfumed and very firmly moulded, it lathers well, and lasts longer than many other first-class toilet soaps.

Lanoline (Liebreich) supplied to the trade in 1-lb. and 7-lb. tins at 2s. 8d. per lb. Anhydrous Lanoline (Lanolinum Anhydricum) at 3s. 4d. per lb. Lanoline Base (Ung. Lanolini), 2s. 2d. per lb. Anhydrous Lanoline Base, 2s. 10d. per lb. Ceresin, 1s. 6d. per lb.; Paraffinum Liquidum, 1s. per lb. (packages extra). Lanoline Cold Cream supplied in pots at 14s. per dozen. Lanoline Hazeline Ointment, in pots at 14s. per dozen. Lanoline Pomade, in pots at 14s. per dozen. Lanoline Toilet Soap, 8s. per dozen. Lanoline Eucalyptine Soap, 8s. per dozen. Lanoline Pinol Soap, 8s. per dozen. Toilet Lanoline, in tubes at 4s. 6d. and 9s. per dozen. Lanoline Creolin, in tubes at 9s. per dozen.



BURROUGHS, WELLCOME & CO., SNOW HILL BUILDINGS, LONDON, E.C.

ABOVE PRICES SUBJECT TO USUAL DISCOUNT.



# REASONS WHY

The Kepler Solution of Cod Liver Oil in Malt Extract is so largely prescribed by Physicians :

BECAUSE it is prepared by *dissolving* the finest virgin drippings from fresh Cods' Livers in Malt Extract rich in *diastase*.

BECAUSE the Kepler Solution is well borne by the most fastidious stomach.

BECAUSE the Cod Liver Oil is rendered easy of digestion and the taste completely disguised.

BECAUSE in it are combined the two chief factors for repairing wasting tissues.

BECAUSE it has been found of the highest importance as a food in defective nutrition.

Dr. Lauder Brunton gives a very possible *reason why* the Kepler Solution is found so beneficial. He says in one of his interesting papers "*On the Uses and Administration of Fat*," "If any one were to swallow a lump of butter by itself, it would probably make him sick ; but if he spread the same butter upon pieces of bread, he could take it not only without discomfort, but with enjoyment." Such is the case with the Kepler Solution : the oil is presented to the stomach in a condition ensuring its perfect assimilation. It is totally absorbed, and is never voided *en masse*, nor does it produce nausea.

Children take it readily, and invalids lacking appetite for the ordinary articles of diet employed in the sick-room seldom object to the Kepler Solution. In this preparation are combined the force-giving and fattening properties of Cod Liver Oil with an easily digested and highly concentrated food.

"An ideal form for the administration of fat." "The taste of the oil is agreeably disguised, its nutritive qualities are greatly increased, and it is rendered easy of digestion" (*British Medical Journal*).

---

Kepler Malt Extract and Kepler Solution supplied to the Trade in  $\frac{3}{4}$ -lb. and  $1\frac{1}{2}$ -lb. bottles at 22s. and 38s. per dozen. Retail prices, 2/6 and 4/- each. Special terms to Hospitals.

**BURROUGHS, WELLCOME & CO., SNOW HILL BUILDINGS, LONDON, E.C.**

Above Prices subject to usual discount.



# "Tabloids" of Compressed Drugs.



REDUCED  
PRICES.

Bottles of 100, 7/6 per doz.  
Retail, 9d.



SACCHARIN  
TABLOIDS.

Bottles of 200, 14/- per doz.  
Retail, 1/6.



Pure.

Portable.



Supplied to the Trade in beautifully  
graven white metal boxes, with  
blue silk labels, at 8/ and  
16/ per doz. Retail  
prices, 1/ and 2/  
per box.



Perfect.

Pleasant.



B. W. & Co. Hypodermic Tabloid Pocket Case, fitted and filled complete (12 tubes of 12 or 20 Tabloids each), 15s.

**BURROUGHS, WELLCOME & CO., Snow Hill Buildings, LONDON, E.C.**  
ABOVE PRICES SUBJECT TO USUAL DISCOUNT.



# A READY TEST.

LONDON.]

MARCH 22.

[1890.

When we consider the spirit of imitation seriously, it is a good plan to collect the fullest amount of information relating to the substance in question and compare facts.

The Kepler Malt Extract has acquired an unparalleled notoriety as a perfect preparation of its kind, chiefly on account of its richness in diastase (the vegetable ptyalin), this ferment being the resulting product by decomposition of the gluten which exists in the barley. The dextrin in the Kepler Malt Extract is also an important factor in the treatment of disease. If, as should be the case, our specimen of Malt Extract has undergone no alcoholic fermentation, *dextrin* will be present in large quantities. This body, which is a poly-saccharate possessing the formula  $(C_6H_{10}O_5)_x$ , constitutes nearly one-third of the result of the action of diastase upon starch. Probably at least three different dextrans are thus produced, viz., amido-dextrin, erythro-dextrin, and achroo-dextrin. These bodies are incapable of direct fermentation, but in the presence of diastase they undergo alcoholic fermentation with yeast.

Malt Extract which has undergone fermentation leaves little dextrin behind, the whole having been converted first into *glucose*, and then partly into alcohol.

The physiological action of malt dextrin is to stimulate gastric secretion, and so assist debilitated digestive functions in the performance of their duty.

Proteids exist in malt chiefly as albumen, vegetable casein, &c., and are considered to be an important factor in repairing defective nutrition.

The Kepler Malt Extract contains one-eighth part of such substances, either unchanged or as peptones.

MINERAL MATTERS.—These are in the form of phosphates derived from the grain; the Kepler Malt Extract contains 3 per cent. of these matters. We have, therefore, in the Kepler Extract of Malt a perfect concentrated tonic food, suitable for use in all cases of mal-assimilation and mal-nutrition.

## TEST.

When a teaspoonful of the Kepler Malt Extract is mixed with a dish of warm thick oatmeal porridge or arrowroot, its digestive activity is immediately apparent by the food liquefying and the starch being transformed into assimilable sugar. If such digested food be then tested for sugar by Fehling's test, the sugar reaction will appear markedly manifest. The best "appearance" test for a good Malt Extract is its adhesiveness.

If alcoholic fermentation has been carried on, this adhesive principle (dextrin) has been converted into grape sugar at the expense of the diastase.

It is well, therefore, to avoid *cheap malt extracts*, for in these the bulk of extract has generally been the first consideration, and digestion has been carried on in the wort until the whole of the starch, dextrin, and proteids are converted into soluble saccharine products. This, then, is the reason why cheap malt extracts can be made. They are generally found of no more benefit as a food or digestive agent than treacle.

Kepler Extract of Malt and Kepler Extract of Malt with Cod Liver Oil (Kepler Solution) supplied to the Trade at 22/ and 38/ per dozen.

BURROUGHS, WELLCOME & CO., SNOW HILL BUILDINGS, LONDON, E.C.

ABOVE PRICES SUBJECT TO USUAL DISCOUNT.



# "VASELINE," in 1d., 2d., & 3d. TINS.

All nicely wrapped, and stamped with the name of

THE CHESEBROUGH MANUFACTURING CO., the Proprietors and Sole Manufacturers.  
NONE OTHER GENUINE.

1d. Tins, One Gross in Wood Box at 8/-, Five Gross assorted, 7/2 per Gross net.

2d. Tins, One " " 16/- " 14/- "

3d. Tins, Half " " 24/- " 21/- "

Of all Wholesale Houses, or  
Sample Boxes Carriage paid  
on receipt of Postal Order.

**CAUTION.**—The fancy word "VASELINE" is the Registered Mark, and is the exclusive property of this Company, and indicates *THEIR* make and putting up of *THEIR* preparations of Petroleum Jelly.

SHOW CARDS AND CIRCULARS ON APPLICATION.

42 HOLBORN VIADUCT, LONDON, E.C.

## I C H T H Y O L .

FOR INTERNAL AND EXTERNAL USE IN SKIN AFFECTIONS.

Ichthylol, discovered by Schröter, is distilled from a peculiar bitumen found in the Tyrol, and has the consistency of purified coal-tar. Unna gives the following directions for its use:—

Internally.—Ichthylol is indicated: (1) In skin diseases: Acne rosacea, nervous forms of eczema, eczema from teething, lichen, urticatus, erythema multiforme, dermatitis, furunculosis (not indicated in psoriasis). (2) In the following other diseases (after five years' experience): In acute and chronic rheumatism, chlorosis, tuberculosis and scrofula, and vascular engorgements of any kind. Professor Zuebzer, of Berlin, thinks that Ichthylol acts as a tonic, by preventing organic waste. He gave the salts of Ichthylol (ammonium and sodium sulpho-ichthylates) either in capsules or pills, and of these one or two capsules each containing 4 grains every two hours, or three or four pills of 2½ grains repeated every two hours. Ichthylol is very valuable as an external application for the treatment of acne, eczema, and lichen.—*British Medical Journal*, Vol. I., fol. 800, 1887.

Ichthylol is compatible with mercury and its salts, also with zinc or lead ointments. Lanoline is the best basis for the preparation of an ointment. A mild ointment is said to be regenerative, a stronger one resolvent.

Ichthylol supplied to the Trade at 15/- per lb.; also in 1-oz. bottles at 16/- per doz. Ichthylol Capsules (4 min.) in bottles of 50, at 27/- per doz. Ichthylol Pills (2 grs.), in bottles of 100, at 27/- per doz. Ichthylol Soap, 8/- per doz.

BURROUGHS, WELLCOME & CO., SNOW HILL BUILDINGS, LONDON, E.C.

Above Prices subject to usual Discount.

## DRAPER'S INK (DICHROIC)

THE NEW BLACK INK, different from anything else ever produced.

Writing becomes a pleasure when this Ink is used. It has been adopted by the principal Banks, Public Offices, and Railway Companies throughout Ireland.

It writes almost instantly full black.

Does not corrode Steel Pens.

Dries rapidly on the Paper.

Is cleanly to use, and not liable to blot.

Flows easily from the Pen.

Blotting-paper may be applied at the moment of

In Jars, 6d., 1s., and 2s. each.

Can be obtained, in London, through Messrs Barclay & Sons, Farringdon Street; W. Edwards & Son, 157 Queen Victoria Street, E.C. F. Newbery & Son, Newgate Street; S. Maw, Son & Thompson, Aldersgate Street; Hayden & Co., 10 Warwick Square, Paternoster Row; Hovenden & Sons, City Road; Ayrton & Saunders, Duke Street, Liverpool; Goodall, Backhouse & Co., Leeds; Jno. Heywood, John Dalton Street, Manchester; James Hemington, 6 Moor Street, Birmingham; Henry Hodder, Broad Street, Bristol

BEWLEY & DRAPER (Limited), DUBLIN.

See "CHEMIST AND DRUGGIST," December 15th, 1874.

## BENGER'S PREPARATIONS

GOLD MEDAL AWARDED, HEALTH EXHIBITION, LONDON.

"Mr. Benger's admirable Preparations."—*LANCET*.

### LIQUOR PANCREATICUS (BENGER).

For preparing peptonised or partially digested milk, soups, &c. Bottles, 2/6, 4/6, and 8/6, with full directions.

### BENGER'S PEPTONISING POWDERS.

Colourless, odourless, and soluble. One will peptonise a pint of milk, &c., in 10 to 15 minutes. Boxes of 12 powders, 2/6.

### LIQUOR PEPTICUS (BENGER).

An exceedingly active fluid pepsin. Dose, one to two teaspoonfuls with meals. Bottles, 3/6, 5/6, and 10/6.

### BENGER'S PEPTONISED BEEF JELLY.

A delicious quick restorative; will keep in any climate. Tins, 2/ each.

### BENGER'S PEPTONISED CHICKEN JELLY.

A nutritive delicacy for Invalids. Tins, 2/ each.

### BENGER'S FOOD (Pancreatized).

For Infants, Children, and Invalids. This delicious and highly nutritive food is distinguished from others by the ease with which it can be digested and absorbed. Tins, 1/6, 2/6, 5/6, and 10/6.

### BENGER'S NEW ESSENCE OF RENNET.

For making pure whey, junkets, &c. Bottles, 1/ each.

BENGER'S PREPARATIONS are obtainable through all leading Wholesale Houses or of the Manufacturers,

MOTTERSHEAD & CO. (S. PAINE & F. B. BENGER), PHARMACEUTICAL CHEMISTS, MANCHESTER





ESTABLISHED 1859.

PRINCIPAL OFFICE, 42 CANNON STREET, LONDON, E.C.

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Supplied regularly to every member of the following Societies, who have adopted THE CHEMIST AND DRUGGIST as their official organ:—

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The Pharmaceutical Society of Queensland.

The Pharmaceutical Society of South Australia.

The Hobart Chemists' Association.

The Launceston Pharmaceutical Association.

South African Pharmaceutical Association.

For Australasian subscribers the subsidiary journal, THE CHEMIST AND DRUGGIST OF AUSTRALASIA, is included.

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## POST-CARD COMPETITION FOR MARCH, 1890.

NAME on a post-card the six most popular prescribers in the United Kingdom.

The usual prize of one guinea will be awarded to the competitor whose list comes nearest to the general consensus, but in the event of several forecasting the exact result we reserve the right to divide the prize.

Competitors must be subscribers or their employés. No cards will be accepted for competition which reach us after March 31.

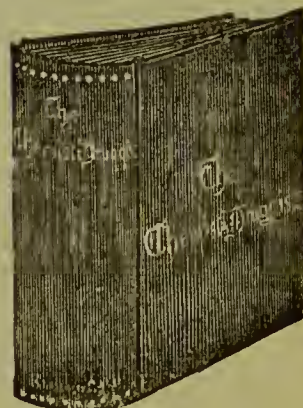
## SPECIAL NOTICE.

WE have announced previously that separate lists for different parts of the United Kingdom might be sent in. There seems to be but little inclination to take advantage of this proposal, and as it only creates confusion, we cancel

that part of the competition. The prescribers named on every post-card will therefore be taken as being given in the general competition.

THE CHEMIST AND DRUGGIST OF AUSTRALASIA, published monthly at our Melbourne office, can be supplied to subscribers outside Australasia at 5s. per annum, payable in advance, and commencing at any date. Chemists interested in the drug trade and the pharmaceutical affairs of the Australasian Colonies will find a full record of all events affecting their occupation in *The Chemist and Druggist of Australasia*. Single copies can be supplied at 6d. each. Application should be made by English or American subscribers to the office at 42 Cannon Street, London.

THE reading cases which we offer to subscribers are now used by a very large number of chemists, and are found very convenient. They keep together thirteen numbers in very tidy form, always ready for reference. By having two cases in hand the numbers of a complete volume are always available until the time comes for binding. We sell these cases at the office for 1s., or by parcels post 1s. 3d., or two for 2s. 3d. We cannot forward them to any house for enclosure, nor by any of the carriers, as in the latter case we have to pay for booking.



WE have pleasure in announcing to Continental subscribers that henceforth, by arrangement with the post offices of the various countries, subscriptions to THE CHEMIST AND DRUGGIST can be paid at any post office in Austria-Hungary, Belgium, Denmark, Germany, Holland, Norway, Russia, and Sweden at our rates, namely 10s. per annum including postal delivery to subscribers in any of those countries. Subscriptions may date from the first issue of any month.

## “THE HANDY BOOK OF MEDICINE-STAMP DUTY.”

THIS work has been written for us by Mr. E. N. Alpe, of the Solicitors' Department, Inland Revenue Office, Somerset House, who has had a wide experience in and intimate knowledge of the administration of the Acts which regulate the sale of proprietary medicines. The Handy Book is, consequently, of exceptional value to chemists and druggists, more especially in showing how medicines are made liable to stamp-duty by labelling, circulars, and the like. Reviewers have been unanimous in stating that the work is not only complete, but interesting and invaluable. It is as free as possible from legal phraseology, is readable, and is nicely got up. Price 2s. 6d., or by post 2s. 9d. May be obtained through the wholesale houses in the same way as “The Art of Dispensing.”

SUBSCRIBERS' ADDRESSES.—In order to ensure uninterrupted delivery of THE CHEMIST AND DRUGGIST to subscribers who may be changing their address, notice of such change should be received by the Publisher not later than Monday of the week in which the journal is to be sent to the new address.

ADVERTISEMENTS of situations vacant and wanted, businesses for disposal, &c., will be received by us up till the first post on Friday morning.



# CORNER FOR STUDENTS.

CONDUCTED BY RICHARD J. MOSS, F.C.S., F.I.C.

## QUALITATIVE ANALYSIS.

A MIXTURE of two salts will again form the subject of the exercise in qualitative analysis. The mixture is to be submitted to a thorough systematic examination; its constituents are to be detected, and all other substances proved absent.

Students' applications for portions of the mixture will be received up to Wednesday morning, March 26, and the samples will be forwarded immediately.

Students' reports will be received up to Saturday morning, April 5. Each report should contain a concise account of the work done, and should include a list of the constituents detected, distinguishing any which may be regarded as accidental impurities.

## REPORTS.

The subject of the last exercise was a mixture of 4 parts of calcium phosphate and 1 part of strontium carbonate. Its calculated composition was:—

Sr	..	..	..	..	..	..	11.87
Ca	..	..	..	..	..	..	30.97
Po <sub>4</sub>	..	..	..	..	..	..	49.03
Co <sub>3</sub>	..	..	..	..	..	..	
							100.00

Forty-five students sent in reports, and of that number only three succeeded in detecting nearly 12 per cent. of strontium. Fourteen students failed to detect the phosphoric radicle, a constituent which formed just about half of the mixture; and ten failed to detect nearly 31 per cent. of calcium. The constituent present in smallest quantity was the carbonic radicle, and all but two of our correspondents detected it.

This analysis was a complete puzzle to several of our correspondents: they were not prepared for the copious white precipitate, something like aluminium hydrate, which was thrown down when ammonia was added to the acid solution. The insolubility of this precipitate in the fixed alkalis showed that it did not consist of aluminium hydrate; it was, in fact, the original calcium phosphate of the mixture, thrown down as soon as the acid which kept it in solution was neutralised. There are several other salts of not uncommon occurrence which would behave in the same way; their presence necessitates a considerable variation in the method of analysis, so that one must be on the look-out for such compounds. If the substance under examination is not soluble in water, and is soluble in acids without apparent decomposition, the possible presence of a salt, which will be precipitated on the neutralisation of the acid, must be considered. The presence of such a salt will not interfere with the detection of any metallic radicle belonging to the groups which are precipitated from acid solutions, either in the form of chloride, or in the form of sulphide; but it may interfere with the detection of members of the important groups which are precipitated from alkaline solutions as hydrates, sulphides, or carbonates. Accordingly, when in the ordinary course of an analysis, a precipitate is produced on the addition of ammonium chloride and ammonia to the acid solution of a substance which was not soluble in water, the presence of a phosphate, oxalate, borate, silicate, or fluoride may be suspected. The student, when once aware of the necessity for caution at this stage of the

analysis, will not find much difficulty in ascertaining whether a compound of this character is present. The salts of most common occurrence are phosphates, and the simplest way of dealing with them is to precipitate the phosphoric acid in combination with iron. We must refer our correspondents to their text-books for details of the process, with the warning that they are not likely to succeed in applying the process to a substance of unknown composition unless with some previous practice on mixtures of known composition.

The strontium in this case was not present in sufficient quantity to admit of certain detection by the flame test applied to the original powder. Most of it appeared as carbonate when ammonium carbonate was added to the filtrate from ammonium hydrate and sulphide. When this small precipitate was dissolved in dilute hydrochloric acid, and the solution evaporated to dryness, the residual chloride gave a well-marked strontium coloration to the Bunsen flame. On dissolving the chloride in a few drops of water, and adding about twice the quantity of calcium sulphate solution, a precipitate appeared in the course of a few seconds. If the precaution of expelling the free acid by evaporating the solution to dryness was not adopted, there was great risk of overlooking the strontium altogether, as the sulphate does not so readily form in a solution containing free hydrochloric acid. Moreover, the evaporation gives a strong solution, which may be more satisfactorily examined than a weak one. Acetic acid is sometimes employed to dissolve the carbonate, but the use of hydrochloric acid and subsequent evaporation has some advantages, such as the convenient application of the flame-test—a most useful auxiliary.

## PRIZES.

The First Prize for the best analysis has been awarded to H. BOWDEN, 294 Liverpool Road, Patricroft, near Manchester.

The Second Prize has been awarded to

ALFRED SHAW, 10 South Road, Waterloo, Liverpool.

## Marks Awarded for Analyses:

H. Bowden (1st prize) ..	100	Dexter ..	78
A. Shaw (2nd prize) ..	90	G. Archer ..	76
H. Hamer ..	88	Saponis ..	73
A. P. ..	87	Sweet William ..	70
W. L. ..	86	Maranta ..	65
Danwer ..	86	Edinburgh ..	60
T. Guttridge ..	86	C. E. Pickering ..	55
J. H. T. ..	86	A. W. ..	53
S. H. Tootle ..	85	F. H. B. ..	50
Sp. viz rect. ..	84	F. Thornton ..	50
M. M. ..	84	E. P. Greenhalgh, jun. ..	45
F. W. English ..	84	C. Greenhalgh ..	42
A. M. S. ..	84	Formate ..	40
A. W. B. ..	83	Edgar ..	40
H. W. Colley ..	83	Ert ..	40
W. B. Bell ..	83	Aniseed ..	20
Fao paem ..	83	Bowker ..	20
Studiosus ..	83	A. Thorpe ..	20
Crumpall ..	82	Semper idem ..	15
Moyhitt ..	82	Clam ..	10
Cyathus ..	81	W. H. Goy ..	10
Nosreap ..	81	Cetaceum ..	10
H. D. Kelf ..	80		

## TO CORRESPONDENTS.

**Prizes.**—Those students to whom prizes are awarded are requested to write at once to the Publisher, naming the book they select, and stating how they wish it forwarded.

Any scientific book that is published at a price not greatly exceeding half-a-guinea may be taken as a first prize.

Any scientific book which is sold for about five shillings may be taken as second prize.

•• All communications should include the names and addresses of the writers.

H. BOWDEN.—Your analysis was very creditable. Without trying the experiment, it could scarcely have been predicted that the method of



separating strontium and calcium which you resorted to would have been successful.

ST. VINI RECT.—Barium is so readily precipitated as sulphate that you ought to have had no difficulty in confirming its presence, even if the mixture contained only a trace.

M. M.—In the presence of ammonium chloride calcium is not completely precipitated by ammonium carbonate, so that when sodium phosphate is added to detect magnesium you may expect a slight precipitate of calcium phosphate, which may be mistaken for magnesium phosphate.

P. W. ENGLISH.—The precipitate produced by ammonium carbonate in the filtrate from ammonium sulphide consisted chiefly of strontium carbonate. When it was dissolved in a very small quantity of acetic acid there was not the least difficulty in detecting the strontium, but if by the use of too much acid the solution was made dilute, the detection of strontium became difficult.

A. W. B.—You observe that the powder did not give any distinct coloration to the Bunsen flame; this observation is not consistent with your final conclusion that the powder consisted almost entirely of a calcium salt. It coloured the flame a brick-red—too red for a pure calcium compound.

W. H. BELL.—You observed that the powder coloured the flame red, and because it was not crimson you concluded that strontium was absent. If one metal only could be present, such a conclusion would be justifiable, but certainly not in the presence of two or more. In this case the calcium coloration predominated, but to the experienced eye the flame was too red for calcium alone.

FAC PACEM.—In the presence of an excess of acetic acid, however slight, sodium acetate would not have given the precipitate which you attributed to aluminium. If you did obtain a precipitate the solution must have been alkaline, as the precipitate must have consisted of calcium phosphate, which is soluble in acetic acid.

CYATHUS.—Your proof of the presence of aluminium seems conclusive, but there was no aluminium in the mixture, and to account for your reactions we must suppose the sodium hydrate you employed to be very impure. You had better examine it for aluminium.

NOBREP.—You did not prove the absence of anything except the elements precipitated as sulphides from an acid solution.

H. D. KELV.—You did not make any analysis of the ammonium carbonate precipitate. This was a serious omission. You added nitric acid to something, and on evaporating to dryness you found the residue insoluble in alcohol; this is unintelligible in the absence of any information as to what it was you added the nitric acid to.

SAPONIS.—The calcium in the mixture of salts was precipitated as phosphate when you added ammonia to the hydrochloric acid solution. This precipitate you dissolved in hydrochloric acid, and having tested portions of the solution for iron and phosphoric acid you again neutralised the solution with ammonia, which of course threw down the calcium once more as phosphate. The only thing you did with this latter precipitate was to examine it for aluminium, accordingly the calcium escaped detection.

SWEET WILLIAM.—Your analysis was not very exhaustive. You must remember that proof is required of the absence of all the ordinary basylous and acidulous radicles that cannot be shown to be present.

MARANTA.—You ought not to have attached so little importance to the effervescence produced by the action of an acid upon the powder. You concluded that no carbonate was present because ferric chloride failed to give a precipitate in something—you do not say what; you cannot have meant an aqueous solution, because the powder was not soluble in water, and surely you did not think of detecting a carbonate in an acid solution of the powder.

EDINBURGH.—The first thing to aim at is accuracy in your work; this requires experience, which is best obtained by the analysis of mixtures of known composition. You will find it instructive to compare the effect of an acid—say dilute hydrochloric acid—upon a carbonate and upon a sulphide.

A. W.—Not bad for a first attempt. The character of the analysis is completely altered by the presence of a phosphate of one of the alkali earths.

F. H. B.—You do not note the fact, which, however, you can scarcely have failed to observe, that the powder was white; chromium could not, therefore, have been present in notable quantity. The possibility of a phosphate being present does not seem to have occurred to you.

F. THORNTON.—If an arseniate had been present the arsenic ought to have been detected on the addition of sulphuretted hydrogen to the acid solution, without reduction by sulphurous acid. The various reactions depending upon the volatility of compounds of arsenic afford means of distinguishing them from compounds of phosphorus.

C. GREENHALGH.—In one part of your report you say that sulphuretted hydrogen did not give a precipitate in a hydrochloric acid solution of the powder; in another place you say it gave a yellow precipitate.

FORMATE.—You did not employ a sufficiency of ferric chloride in your attempt to separate the phosphoric acid. The success of the operation depends upon having no free acid in the solution except acetic acid and a slight excess of ferric chloride.

EDGAR.—A minute trace of iron gave the ammonium sulphide precipi-

tate a greenish tint. If the powder had the composition you assigned to it it would not have yielded a colourless solution.

ANISEED.—You do not appear to have observed the strong effervescence that took place when the powder was treated with an acid. Your statement that part of the powder was soluble in water ought to have been supported by the evidence of an experiment.

BOWKER.—You say that strong hydrochloric acid caused a gas to be evolved with a pungent smell like sulphurous anhydride. Your impression was due, no doubt, to the fumes of the hydrochloric acid. To avoid the repetition of such an error you ought to experiment upon a sulphite and a carbonate with dilute hydrochloric acid. The white precipitate thrown down by ammonium hydrate consisted of calcium phosphate.

SEMPER IDEM.—Such a mixture as you describe would colour the flame intensely red. The phosphate was the cause of your difficulties.

CLAM.—The filtrate from the ammonium sulphide gave an immediate precipitate with ammonium carbonate. You must have allowed the solution to become extremely dilute.

CETACEUM.—The chief difficulty in this case arose from the presence of calcium in the form of phosphate. There are several other compounds insoluble in water and soluble in acids, which may give rise to a similar difficulty. You will find the matter fully dealt with in any good text-book of qualitative analysis. The course to be adopted in the presence of such compounds is worthy of a careful experimental study.

## Metropolitan Reports.

CHEMISTS' ASSISTANTS' ASSOCIATION.—At the next meeting, to be held on Thursday, March 27, a paper by Mr. J. F. Burnett, F.C.S., on "The Method of Growth in the Increase of Stems," will be read.

THE CHEMICAL SOCIETY.—The anniversary meeting of the Chemical Society will be held this year on Thursday, March 27, at 4 P.M. The members and their friends will dine together at the Whitehall Rooms, Hotel Metropole, on the evening of the same day at 7 P.M. for 7.30 P.M.

A LARGE MANGANATE OF SODA CONTRACT.—At the weekly meeting of the London County Council, held at the Guildhall on Tuesday, the seal of the Council was, on the recommendation of the Main Drainage Committee, affixed to a contract with Messrs. C. Tennant, Sons & Co., for the supply of 1,200 tons of manganate of soda at 12 $\frac{1}{2}$  per ton; and a contract with the Widnes Alkali Company for the supply of 800 tons at 12 $\frac{1}{2}$  per ton.

ALLEGED THEFT OF PHOTOGRAPHIC SUNDRIES.—Last week, at the Lambeth Police Court, George Wallis (38), carman, was charged on remand with stealing a large quantity of photographic instruments and chemicals, valued at nearly 150 $\frac{1}{2}$ ., the property of Messrs. Fallowfield & Co., photographic instrument makers, Oakley Street, Lambeth, and Henry Normington (31) and Edward Laport (40) were charged with receiving the property, well knowing it to have been stolen. After hearing some additional evidence the prisoners were again remanded.

THE LIBERTY MUSICAL SOCIETY.—The fourth, and last, smoking concert of the season was held in the large saloon of the "Salutation" Restaurant, Newgate Street, on Tuesday evening. Mr. W. H. Kirby presided, and Mr. T. Jardine occupied the vice-chair. The committee had provided a most attractive programme, which included zither solos by Herr Curt Schulz, and pianoforte solos by Mr. F. F. Rogers, of Steinway and Sons, who had, with great liberality, sent a "concert grand" for this special evening. The programme, as a whole, was a very entertaining one, and, without mentioning the names of the performers, who were old favourites, we may say that all joined to make the evening a success. Amongst those whom we noticed present were Mr. Wellcome, Mr. R. C. Sudlow, Mr. H. Walker, Mr. Helbing, and most of the heads of departments in Messrs. Burroughs, Wellcome & Co.'s establishment.

WESTMINSTER COLLEGE PHARMACY CLUB.—At a meeting of this club, held on Tuesday evening, Mr. A. Ball read a paper on "Some Improvements in Pharmacy." The author considered that substantial progress had been made in pharmaceutical science and practice during the past forty years, and after glancing at the work done by such men as Pereira, Fownes, Redwood, Hanbury, and others, he proceeded to discuss some of the departments of pharmacy in



which progress is most marked. Under this heading fluid extracts took a leading place, and, referring to them, Mr. Ball gave it as his opinion that the tendency has been to carry concentration a little too far, and he advocated the reduction of the strength to 1 in 2. He then criticised the various methods which are in use for the preparation of fluid extracts and tinctures, and in regard to fluid extract of coca suggested an improvement upon the official process. He thought that in this case it would be better to direct sufficient spirit to be poured upon the drug to cover it, and that a layer of the menstruum should not be maintained constantly above the drug. The quantity first employed should be allowed to stand forty-eight hours, and then the solution run out of the percolator, as far as possible, before more of the menstruum is added, care being taken that the top layer does not become dry. As the mass is apt to be loose after the removal of the extractive matter, it should be pressed down gently after the first liquid is drawn off. Each time the menstruum is added it should completely fill the packing from top to bottom. The second lot should stand twenty-four hours and then drain off, no further liquid to be added until the flow of liquid from the percolator becomes very slow. By this process more extractive is obtained with less menstruum. In a similar manner other preparations were touched upon. A few words were said about Squibb's re-percolation and Symes's maceration and pressure processes, and a reference was also made to the improvements in pill-making and the introduction of compressed tablets. Then the author considered briefly the more important synthetic bodies which are in use as medicines, and finally spoke of ointments, with special reference to lanoline. Mr. Watson Will started a discussion, which had reference chiefly to lanoline. The experience of one gentleman present was decidedly unfavourable to this base; he had tried to mix it with glycerine, but failed. Another gentleman had experienced difficulty in making a satisfactory ointment of ichthyol with lanoline, and it was stated that ichthyol was only perfectly miscible with lanoline to the extent of 25 per cent. In an ointment containing calomel, cocaine, hydrochlorate, lard, and lanoline, reduction of the calomel took place, apparently owing to the action of free fatty acids upon the calomel, similar to the case of the ung. hydrarg. oxyd. rub. A vote of thanks to Mr. Ball concluded the proceedings.

## Provincial Reports.

*Items of news, and newspapers containing matters of interest to the trade, sent to the Editor will much oblige.*

### BIRMINGHAM.

**CHEMICAL MANUFACTURERS AND THEIR WORKMEN.**—AN INTERESTING SCHEME.—At the annual meeting of the Oldbury Alkali Works Provident Society (Messrs Chance Bros.) held at the works on Saturday, Mr. A. M. Chance, one of the partners and manager of the firm's extensive works, laid before the operatives an interesting scheme. He explained that the firm had purchased four acres of land at a place named Tat Bank, for the workpeople to build houses on. He (the speaker) and another member of the firm had been appointed trustees, and the disposal of land was left in their hands. They invited those workpeople who chose to build their own houses to consider the matter, so that some feasible plan of dividing the land might be devised. The workmen could either purchase the freehold of the land or take it on a long or short lease. A committee, consisting of Messrs. A. M. Chance, G. F. Chance, and five workmen, was appointed to consider the building scheme. Mr. Chance intimated that if the proposal was appreciated, the firm would assist their workpeople in another direction.

### LIVERPOOL.

**CHEMISTS' ASSOCIATION.**—The next ordinary meeting of the session will be held at the Royal Institution on Thursday, March 17.

**PHARMACEUTICAL STUDENTS' SOCIETY.**—It has been arranged to hold a conversazione of this Society at the Temperance Hall, Hardman Street, on Friday, April 18. An attractive programme is in process of preparation, and a good attendance is expected.

**CARBOLIC ACID POISONING.**—On March 14 an inquest was held by the City Coroner on the body of Edwin Hassall, of Wilbraham Street, who was found dead in bed on the previous Tuesday morning. A bottle and glass which had contained carbolic acid were found near the bed. It seems the man had been drinking heavily for some months, and took this means of terminating his existence.

**UNIVERSITY COLLEGE PHOTOGRAPHIC SOCIETY.**—At a meeting of the Society held in the theatre of the chemical laboratories, University College, Brownlow Street, on Monday, March 17, at 7.30 p.m., Dr. F. Hürter read a paper on "Recent Photo-Physical and Photo-Chemical Investigations." The paper, which was the outcome of a long series of experimental investigations extending over eight or nine years, dealt with many technical points concerning density, capacity, and transparency. The author described an instrument for measuring the density of negatives.

### IRELAND.

**HOSPITAL SUNDAY.**—The total amount of this year's hospital Sunday fund is 3,960*l.*, being an increase of 90*l.* over the preceding year.

**A TRADE-MARK DISPUTE.**—In accordance with the wish of the plaintiffs and defendants the Vice-Chancellor has arranged for the forthcoming trial of Thwaites & Co., chemists, Dublin, against Mooney & Co., Dublin and London, to take place on affidavit and without a jury.

**A STUDENT OF SCIENCE.**—"What are you?" said the judge. "I'm a conchologist" was the reply. "What's that?" asked his honour. "Oh! well, you see," explained the prisoner, "I open oysters down in Paddy Murphy's saloon."

**IRISH DRUG CONTRACTS.**—Tenders for a year's supply of druggist sundries, medicines, drugs, surgical and medical appliances, are invited by the following public bodies on or before the under-mentioned dates:—Athlone Union, with workhouse and five dispensaries, March 29; Borrisokane poor-law district and three dispensaries, March 24; Castlereagh Union, March 22; Edenderry Workhouse and six dispensaries, March 22; Croom Union and neighbouring dispensaries, March 25; Kilmacthomas Workhouse and outlying stations, April 1; the board of guardians of the Limavady Union and adjacent district, March 24; New Ross for six months, from and after March 25; Portumna Union, dispensary depôts, and workhouse, March 22; Skibbereen workhouse and four dispensaries; Urlingford Union and a number of neighbouring dispensaries, March 22; Youghal poor-law district and outlying dispensaries, from March 26. Special regulations exist for the conveyance of supplies, furnishing of securities, packing, allowances for empties, &c., the particulars in each case being specified in the forms of tender. The guardians of the North Dublin Union will receive tenders, not later than April 2, for a year's supply of drugs, medicines, surgical appliances, &c., samples of which must accompany the printed forms of application, and, where possible, the goods must be of Irish manufacture. Security and delivery by contractor are the terms stipulated. Messrs. Harrington & Sons, chemists, Cork, have secured the contract for disinfectants to the municipal body of that city.

### SCOTLAND.

#### DUNDEE.

The business in Victoria Road lately carried on by Mr. Rodger, under cover of a medical gentleman in town, and in connection with which there was a law suit some months ago, has been taken over by Mr. T. S. Peebles, chemist. Lochce, as a branch, and will be under the management of Mr. H. F. Scott.

**CHEMISTS' ASSISTANTS' AND APPRENTICES' ASSOCIATION.**—At the meeting held on March 13 Mr. D. M'S. Skinner, vice-president, read a paper on "The Advantages Derived



through Retail Chemists making their own B.P. Preparations." The advantages to the employer were first spoken of, then the essayist considered the advantages derived by assistants and apprentices in establishments where most of the galenical preparations are made, dwelling strongly on the aid these gave to those reading for their "Minor." The paper showed an intimate acquaintance with the subject, and was well received; and, in the remarks which followed, general regret was expressed that the association is to lose the assistance of the author, who is shortly to enter the ranks of employers. The annual meeting of the association is to be held on March 27, when the treasurer's and secretary's reports will be submitted and office-bearers elected.

#### EDINBURGH.

**CHEMISTS' ASSISTANTS' AND APPRENTICES' ASSOCIATION.**—At the last meeting, held on March 12, Mr. A. Russell Bennet, President, in the chair, Mr. C. F. Henry brought forward the following dispensing difficulty he had met with:—

Ammon. bromid.	..	..	..	gr. iv.
Potass. iodid.	..	..	..	gr. ss.
Saccharini	..	..	..	gr. j.

Misce.

Tales vi.

These powders were to be taken by a baby. When the crystals were rubbed down in a glass mortar the powder became tinged with a yellow colour, which, after a few days, became of a reddish hue. After describing numerous experiments undertaken to investigate this change, Mr. Henry arrived at the following conclusions—(1) that the colouration was due to the potass. iodid., or to some impurity, probably hydriodic acid, and (2) that the physiological action of the powders was slightly affected, but that the red compound developed was not poisonous. The same author read a paper on "Gum Ghatti," which he recommended for adhesive purposes. In a third communication Mr. Henry gave reasons for advocating that a "shake the bottle" label should be put on aqueous mixtures containing sal volatile, and in a fourth he reported from experiments with four mixtures that the red colour developed in mixtures containing salicylic acid and spirit of nitre, or of salicylic acid and sal volatile, was much deeper if the natural acid were used than when the artificial product was employed. Mr. Rutherford Hill then gave a lecture, illustrated by experiments, on the manufacture of hydrochloric acid. At the meeting of the association to be held on Wednesday, March 26, papers on "The Minor," by Mr. Wm. Dunnean; "A Report on Hydrocyanic Acid," by Mr. A. Leys; "Notes on Some New Remedies," by Mr. George Lunan; and a communication from Mr. J. R. Hill will be read. This meeting is to be open to the trade.

#### GLASGOW.

**GLASGOW CHEMISTS' AND DRUGGISTS' ASSISTANTS' ASSOCIATION.**—The closing address of the session was delivered by Mr. John McMillan, one of the vice-presidents, on March 19, on "Attention to Details." The executive of the association have arranged for a smoking concert in Ancell's Rooms, Virginia Street, on March 26, the interval between the two parts of the programme to be devoted to the receiving of the report, election of office-bearers for next session, &c.

**ACCIDENT.**—An alarming accident took place in the Apothecaries' Company's shop a few days since. One of those unsophisticated customers who copy impossible recipes out of popular periodicals asked for some nitric acid and mercury mixed together in a bottle. The assistant who put up the mixture thoughtlessly corked the bottle and shook it, when, of course, it exploded with great force, most of the corrosive contents being discharged on his face. The poor fellow was at once sent off to the infirmary, where it was found that his eyes had been severely injured, and there is some danger of the sight being lost.

**REACTION.**—Messrs. Burroughs, Wellcome & Co.'s representative has been in Glasgow this week making another attempt to get retailers—both grocers and druggists—to enter into a treaty to advance the price of their goods. According to his account, even the keenest cutters are tired of the no-profit system, and are now willing to lend a hand in regaining better prices. The proposal has everywhere met with a favourable reception, and he hopes that, unlike a

former experiment, which failed from the defection of some of its professed adherents, this time an unbroken front will be maintained.

## General and Provincial News.

**THE U. S. PHARMACOPŒIA Convention** will open at Washington on May 7 to discuss preliminaries. Three hundred delegates are expected to be present.

**CREOLITE.**—From the creolite mines of Ivigtut, in Greenland, in 1889, thirteen cargoes were shipped. The number of hands employed was 100, 50 of whom remained through the winter.

**SALE OF ANTIPYRIN RESTRICTED.**—In consequence of a man in Austria having tried to poison himself with 8 grammes of antipyrin, the sale of that drug to the public has now been prohibited. The curious thing is that the big dose of antipyrin did not do the man a bit of harm.

**A NEW ITALIAN PHARMACOPŒIA** is now definitely announced to appear within the course of the present year. Two novel features of this Pharmacopœia will consist in the addition to it of an official scale of charges for drugs, and a list of such medicines as may be sold by non-qualified persons. A new code of sanitary law is also in preparation, which provides for the compulsory establishment of a pharmacy in each of the 3,587 Italian communes, which are now without one. On August 1 there were 10,244 public pharmacies in Italy.

**THE COAL STRIKE.**—In accordance with the general strike movement, about 7,000 miners ceased work in the district of Castleford, Yorkshire, on Saturday last. Breffitt's (Limited) and the Ashley Patent Bottle Company (Limited), both of whose works are in this locality, informed the men employed there that their services would not be required after the present supply of fuel is exhausted. As coal mining and bottle-making are the staple industries of Castleford, the outlook is considered serious. There is already a strike of potters at Castleford, some 500 men being out for an advance of 10 per cent.

**OPIUM IN BRITISH INDIA.**—Under an agreement with the administration of the opium department of the Bombay Presidency, and with the view of effectually stopping the contraband traffic in opium, the rulers of all native states, except Baroda, have consented to entirely prohibit the cultivation of the poppy in their dominions. Baroda has been permitted to grow and manufacture opium, under a State monopoly, for consumption in its own territory, and for export to China. The State has undertaken to assimilate its opium retail system and selling prices to those for the time being in force in adjoining British districts, and to prevent the introduction of Baroda opium into British territory, and into the territories of adjoining native states.

**CARBOLIC POISONING.**—On March 13, at the Dalton Police Court, Elizabeth Stinton, 18, a domestic servant, of Lorne Road, Stroud Green, was charged with attempting to commit suicide by swallowing a quantity of carbolic acid, with intent to kill herself. The girl was found in a back room, and a bottle, which contained carbolic acid, was on the table. The girl admitted having drunk from the bottle. Dr. Hutton, who was called in, administered an emetic, and the girl was now out of danger. Prisoner expressed sorrow, and her mistress said she was a good girl, but had a bad temper. Mr. Montagu Williams gave the prisoner an opportunity of going to Miss Headland's Home, which was accepted.

**A RETIRED CHEMIST CHARGED WITH THEFT.**—At Llandudno Police Court on March 17, W. S. Penney, a retired chemist and a large owner of property in the town, was charged with breaking into the shop of Mr. Forrester, a tobacconist, and stealing a number of cigars. The defendant occupied rooms in Lansdowne House, the lower portion of which is a tobacconist's store belonging to the prosecutor. Owing to stock being continually missed, the prisoner was watched, and, after removing the lock of the door, was seen to enter the shop and help himself to a number of cigars.



Upon being seized, the defendant offered 100*l.* if nothing was said about the occurrence. He was committed for trial at the Carnarvonshire Quarter Sessions, bail being accepted.

**LAUDANUM AND METHYLATED-SPIRIT POISONING.**—On March 17 at Manchester, Elizabeth Robson was charged with attempting to commit suicide by taking poison. The prisoner was found lying on a couch insensible. Medical assistance was called in and consciousness ultimately returned. Bottles which had contained laudanum and methylated spirits, together with fragments of smaller bottles which had likewise contained poison, were discovered in the house. The prisoner said she was weighed down with trouble, heavier than she could bear, and she had gone to four different shops and purchased twopennyworth of laudanum at each. This she subsequently took, together with methylated spirits. The prisoner's brother, who was now in court, was invited to state anything he desired to say to the magistrates in private, and this he did. The prisoner and her brother were then bound over for her good behaviour.

**PRICE'S PATENT CANDLE COMPANY (LIMITED).**—The forty-third annual ordinary general meeting of the shareholders in Price's Patent Candle Company (Limited) was held on March 14 at the City Terminus Hotel. Mr. T. C. Wright, in moving the adoption of the report, congratulated the shareholders on the results of the year's working. They exhibited in two classes at the Paris Exhibition. In Class 44, for lubricating oils, they had obtained a gold medal, and in Class 45, for chemical and pharmaceutical purposes, candles, nightlights, soaps, glycerine, stearine, and paraffin, they had obtained the grand prize. They were now working entirely with their own capital. The profit of the year was 70,289*l.*, which was increased by the amount brought forward to 75,893*l.* The deductions from this were 18,750*l.* for dividend paid in September, 10,000*l.* for depreciation of plant, and the shareholders were further asked to write 10,000*l.* off the goodwill. After making these deductions, there would remain 37,143*l.*, out of which they recommended a dividend of 10*s.*, and a bonus of 5*s.* a share, making, with the interim dividend, 1*l.* 5*s.* a share for the year. The investments of the company amounted to 70,000*l.*, and they had an insurance fund of 62,000*l.* The report having been adopted, the chairman proposed the voting of 565*l.*, to provide the deficiency in the cost of building the Bromborough Chapel on the company's estate, and on the voting the resolution was carried.

### NEW COMPANIES.

**W. D. NORTH.**—Objects: To acquire and carry on the business of a chemist and druggist and the manufacture of chemicals and any other analogous business, as now carried on at 180 Upper Kennington Lane by the executors of the late W. D. North. Capital, 2,000*l.* in 1*l.* shares, 500 whereof are subscribed for by the signatories to the memorandum of association.

**SULPHUR COMPANY.**—To carry on business as merchants, agents, and factors, for the purchase and sale of any description of merchandise used or produced in the business of chemical manufacturers or connected with the chemical trade. Capital, 10,000*l.*, in 5*l.* shares. First directors (three to seven):—John Brock, Eustace Carey, Alexander Macomb Chance, J. E. Davidson, E. K. Muspratt, G. Pride, and J. A. E. Rayner. Borrowing power not to exceed amount of capital called up.

**JOHNSON & JOHNSON (LIMITED).**—This company was registered on March 6, with a capital of 5,000*l.*, to sell and deal in all preparations and manufactures made by Johnson & Johnson, New York, or other goods in which they may be interested. The subscribing shareholders are Thomas Gilmore, 113 Buckingham Palace Yard, merchant, W. C. Gilles, 29 Newgate Street, merchant, J. MacDonald, Warwick Lane, publisher, G. F. Smith, Beckenham, stationer, O. de la Chapelle, 14 Gray's Inn Square, solicitor, A. H. Skan, Lewisham, shorthand writer, and T. W. Fullilove, Bromley, solicitor. Mr. T. Gilmore is to be managing director until the year 1905, at a salary of 3,000 dollars annually until January, 1893, after which he is to receive, in lieu of salary, 45 per cent. of the net profits.

### LECTURE ON SPONGE.

AT a general meeting of the Hairdressers' Guild on Wednesday evening, March 19, at St. James' Hall, Mr. Herbert B. Marks, of Houndsditch, delivered a very interesting lecture on "Sponge." Mr. J. Wright presided.

In the course of his remarks the lecturer said that until recently sponges were scarcely understood by men of science, while the general public knew little if anything of their origin. The sponge was an animal belonging to the *Polysiparia* class, and was formed of organic matter around a firm horny skeleton. When first taken out of the sea sponges were covered with a bluish black skin, and discharged a very offensive, thick milky, fluid. To purify them pressure was first resorted to. They were then scraped with a knife to rid them of the skin, and afterwards thoroughly washed in the sea, when only the skeleton remained. If the cleansing process were carefully done the sponge in its skeleton state became elastic, and proved pleasant in use; but should the process be only partially attended to, no amount of after-cleansing would avail, and the sponge would always remain more or less sticky and disagreeable. Many experiments had been made to grow sponges by artificial means; but although from a scientific point of view success had been achieved, no result of commercial value had yet been obtained. Pieces cut from the living sponge and replanted, it had been found, would continue to grow, and two pieces cut from the same species of sponge would unite if placed together; but parts from different species failed to unite, however closely they might be fixed together. The four important sponge-fishing grounds of the world were the Mediterranean Sea, Florida, the West Indies and Bahamas, and Cuba. At the end of the first year's growth sponges attained the size of a small lemon, at the end of the second that of a large orange, while, at the end of the third year they were twice or three times the last-mentioned size. Beyond this no positive information had been obtained, but it was thought that they were very slow of growth, and that the very large species were very ancient. The introduction of diving apparatus, and the largely-increased demand for the article, had caused much deterioration in the Mediterranean sponges, as, by the improved apparatus enabling the diver to stay a considerable time under the water, every year large and small sponges were gathered indiscriminately, and before the latter had time to grow. To remedy this, efforts had been made to bring about laws to prevent the fishing being carried on in the same spot, except after a lapse of three years. There are four methods of sponge-fishing in vogue at the present time. First, by means of the native naked diver; second, by the diving apparatus; third, by net-fishing; and fourth, by the harpoon. After describing at length the different modes, and tracing the extent of the various fishing grounds, the lecturer went on to speak of sponge-buying. It was, he said, no easy task, and many years of experience had proved that the oldest buyers were very often seriously in fault in their speculations. A buyer, to be successful, must be well acquainted with the large number of classes and their variations in value. The bleaching of sponges was a process which required great attention, the success of the operation depending to a large extent on the care bestowed. The general method was by means of steeping the sponges successively in preparations of acid and permanganate of potash. From the statistics which had been gathered the Mediterranean sponge fishery showed the largest yield, with an annual production amounting to 250,000*l.*, and employing from 4,500 to 5,000 men. Florida stood second with from 50,000*l.* to 70,000*l.*, bringing employment to 1,200 men. The Bahamas showed an output worth 60,000*l.*, employing 4,500 men; and in Cuba the employment of 700 men produced a yield of 60,000*l.* In round numbers the total amount reached 500,000*l.* worth for the whole world.

Before and after the lecture a number of very fine specimens of sponges were on view, and some excellent photographic pictures of the fisheries were also shown by the lecturer.

A vote of thanks was proposed by Mr. C. Edney, thanking the lecturer for his address, and, on being seconded by Mr. J. Carter, was heartily accorded. A vote of thanks to the chairman brought the proceedings to a close.



## FRENCH PHARMACEUTICAL NEWS.

(From our Paris Correspondent.)

M. SORET (JACQUES-LOUIS), professor of physics at the University of Geneva, was on March 17 elected a corresponding member of the Academy of Sciences, for the section of general physics.

THE INTERNATIONAL CONGRESS OF ELECTRICITY, which last year met in Germany, is to be held next June in Paris. The grant of funds necessary to properly welcome the visitors, will soon be asked for, and Parliament is not likely to refuse the request.

VETERINARY MEDICINE.—A Bill on the practice of this branch of the healing art was, on March 13, introduced by Deputy Dugué de la Fauconnerie, and by unanimous consent ordered to be printed, distributed, and referred to committee.

DENTISTRY.—This art, so far unrestricted, is likely to soon receive legislative attention. At present it forms the object of one of the sections of the Medical Bill, but the provisions are cumbrous, inadequate, and generally criticised. The feeling seems to be that the matter ought to be decided on its own merits, and not in the way most satisfactory to the promoters of the Medical Bill.

THE NAVY SCHOOL OF HEALTH.—The Bill providing for the organisation of a single school, to replace the scattered institutions now in existence, and to correspond to the Military Health School, has successfully passed the ordeal of a first reading before the Chamber of Deputies. The choice of the place has been reserved, and will be left to the judgment of the Administration. Several seaport towns are anxious to be selected, among which we may mention Marseilles and Bordeaux, with the chance rather in favour of the second.

TWICE PUNISHED FOR SELLING MORPHINE.—Mons. A. D., a pharmacist of the second-class in the Nord department, finding the place unhealthy, decided to move, and applied to the Amiens school of medicine and pharmacy, and there passed the examination necessary to entitle him to practise in the Somme department. But the Minister of Public Instruction has refused him licence to open a pharmacy there. The reason is that, while in the Nord, A. D. illegally sold to a physician's wife and daughter quantities of morphine, aggregating on the whole to some 600 f., within a comparatively short period, and resulting in the death of one of the ladies. The courts have already severely punished the unlucky pharmacist.

MATCHES WITHOUT PHOSPHORUS.—From the beginning of the present year the match monopoly has passed into the hands of the State, together with the outstanding stock of the dispossessed corporation and a goodly assortment of lawsuits. At the time the law was passed provisions were introduced prohibiting the employment of children below 16, and ordering the substitution of red for white phosphorus. Last week a letter was published from (then) Minister Rouvier to Deputy David, informing him that "some difficulty is expected in the sale of red phosphorus matches, as their use necessitates various devices not easily accepted by the public at large. For this reason he has asked his department engineers whether it would not be possible to make, without any phosphorus at all, friction matches that would ignite by rubbing on any surface. From the replies returned by chiefs of service, it seems the result desired is not unlikely to be obtained." Although the Ministry has since had a bad fall, the experiments will go on, and it is to be hoped M. Rouvier's statements were more than mere diplomatic assurances.

THE MUNICIPAL LABORATORY is now decidedly to be reconstructed." It is said that, among other changes, Director Girard's place will be taken by M. Lhôte, formerly at the Arts-et-Métiers. But M. Girard is not to be left out in the cold, a snug berth at the Mint being ready for a director whose days of usefulness seem to be over at the laboratory. M. Lhôte was one of the experts in the celebrated Danval wife poisoning case (1877), testifying with Drs. Bergeron and Delens for conviction, against Dr. Cornil, and Professor Bouis of the College of Pharmacy, who were for

acquittal. The fact is, although circumstantial evidence was very strong, there were no material proofs and pharmacist Dauval escaped the guillotine with a sentence of hard labour for life. But to have helped convict a pharmacist is not a bad recommendation with those who control the laboratory.

GOLD CURRENCY STATISTICS.—The Mint Commission, after examining and assaying current coins according to law, have reported them to be up to the legal standard. But the official statement contains interesting data on the condition and tenour of the gold currency in France, which are all the more valuable that the country is known to be one of those where the metallic circulation is largest in proportion to paper. And it may here be remarked that the government assumes the loss resulting from the legitimate wear and tear of the coins. The most important being the 20f. piece, the Commission examined four million and a quarter of such, collected at random by the Bank of France, with the following results. Of the total 82.3 per cent. were native, and 17.7 foreign coins. The latter consisted not only of specie issued by the Latin monetary union, namely, Italy, Belgium, Switzerland, and Greece, but also of the Monaco 20f., Austria 8-florin, and Russia 5-ruble pieces. The last named gold coins are admitted as legal tenders, at par, but the silver issue of the same countries is not, because, unlike the Latin union, they place no restriction on silver coinage. With the passing remark that foreign gold has kept all the time increasing in proportion, foreign coins may now be dismissed, as the French Republic is not responsible for their loss by wear. Of French 20f. pieces, 90.07 per cent. were up to the standard; and 9.92 per cent. were found light weight, and sent to the Mint to be re-coined. The balance, one-hundredth of 1 per cent., proved bad, namely, 266 counterfeit and 65 clipped or washed pieces. In 1888 the proportion of counterfeits, all gilt platinum, was 1 to 12,500, and in 1889, 1 to 16,000. The improvement is still more marked as regards clipping, 1 to a 1,000 having been detected in 1888 against 1 in 65,385 in 1889. To re-coin the legitimate light-weights required 28,966,261 grammes (931.39 troy ounces) of gold, and cost, all told, 91,753.93f., or about 26½ centimes (2½d.) a coin. The Commission estimate that the contemplated operation of bringing all the French gold currency up to the legal standard, would cost between 1,300 and 1,400f. per million. As the re-coining would last over several years, they are of opinion that the burden would hardly be felt.

## GERMAN PHARMACEUTICAL NEWS.

(From our Berlin Correspondent.)

ARISTOL is the latest synthetical substitute for iodoform. Dr. Schirren, in the *Berlin. Klin. Wochensh.*, considers that it possesses a certain value in cases of psoriasis.

EXALGIN.—Dr. Heinz reports his experience with this remedy. The exalgin was given in doses of from 6 to 8 grains, and was found to possess some virtues as an analgesic similarly to antifebrin, phenacetin, and antipyrin, but somewhat weaker: altogether it was not so favourable in action as the last named, of which the author speaks very well.

VALUE OF PHARMACIES.—Although the number of licences granted in the country has been increased, no evidences are apparent of a fall in their individual value, since the supply is still much below the demand. In the neighbourhood of Berlin, a business which seven years ago, sold for 10,000l., fetched eighteen months later 15,000l., and was taken the other day on the payment of no less than 19,000l.

THE "APOTHEKER VEREIN" has issued a new draft of its rules which are submitted to the examination and criticism of pharmacists. The principal innovation, which was resolved at the annual meeting in Mayence, is that votes generally should be given not to the pharmacists who attended the general meeting, but to the representatives of the different branches, a representative being elected by every fifty members.

TREATMENT OF WHOOPING-COUGH.—Dr. Manasse recommends in the *Therapeutische Monatshefte* the use of terpin hydrate as a remedy for whooping-cough. He used it with



success in forty-one cases, giving it to young children, even under a year old, in daily doses of 22 grains; the average dose in powder form was 7 to 15 grains three times a day. He claims to have observed, after four or five days of the treatment, a distinct decrease in the number and intensity of the attacks.

PENGHAWAR DJAMBI, the hairs of a fern tree, which, for many years was used as a styptic, has again been recommended by Dr. Noltenius for the same purpose, as, if not antiseptic, it seems to be at least aseptic. The special advantage claimed for the material over ordinary cotton-wool is that it is much more elastic. The author also used a dressing, which was prepared by the combination of the fibres of penghawar and gossypium. It is noteworthy that amid the continued recommendations of new remedies, we find here and there a word spoken in favour of the virtues of old and well-tried drugs.

THE THERAPY OF ICHTHYOL is being gradually developed, and the latest authority, Professor Gadde, agrees with others that its use is indicated wherever there are enlarged veins or abnormalities of circulation. Hence he recommends it in all skin diseases, in chronic rheumatism, and nephritis, and describes a case of diabetes where, by internal application of ichthyol, the amount of excreted sugar decreased from 7.1 to 0.5 per cent. in a month. The remedy was administered in aqueous solution or in pill form; externally, Gadde used a 50-per-cent. ointment with lanolin. In the *Berliner Klinische Wochenschrift*, too, Dr. Heinz treats of the application of ichthyol in the diseases of women.

A CHEMICAL FESTIVAL.—The German Chemical Society celebrated on the 11th inst., in this city, the 25th anniversary of the great benzene-ring hypothesis, by Professor Dr. August Kekulé then professor of chemistry in the Belgian University of Ghent. The speech of the evening was delivered by Professor Baeyer, of Munich, the oldest of Kekulé's scholars, well known by his researches on the production of synthetical indigo. Among the many celebrities present were the State Minister Dr. v. Gossler, Professors v. Hofmann, v. Helmholtz, and Dubois-Reymond. Among the foreign representatives of science, Professor Armstrong spoke in the name of the English Chemical Society. The Emperor sent a letter expressing his regret that he was unable to be present at the celebration. The toast of "The Representatives of Foreign Societies" was responded to by Professor Armstrong in English. The menu was drawn up to correspond with the nature of the festivity. It commenced with "aromatic" soup and ended with "Caffeine and Nicotine vapour evolution," and there also appeared dishes described as "chlorophyll in polymorphic arrangement" "benzol-ice: thiophene and saccharin free; containing vanillin." Professor Kekulé was received by the Emperor in special audience.

THE CONFISCATION OF A PHARMACEUTICAL JOURNAL is a rare occurrence. Such an event took place in the case of the *Pharmaceutische Zeitung* the other day for the first time in its thirty-five years of existence. An officer from the political police department walked into the office in this city and demanded all the copies of February 22 which remained. The demand was of course submitted to. You are aware that the German apotheker is supervised and inspected at least once every three years by specially-appointed Government officials, who report anything contrary to law or at variance with their interpretation of it. If such a report be made, the apotheker will subsequently receive an official document embodying admonishments and warnings with reference to the offence. An apotheker in Elberfeld who received such a document appears to have resented the remarks it contained, and gave his disappointment vent in a letter to the *Pharmaceutische Zeitung*, which that journal printed. The governmental officials in Dusseldorf thereupon concocted a decree, pointing out to pharmacists the impropriety of venturing to criticise official documents, and observing that if they have any cause to feel injured they have a remedy by complaint at the proper quarters. The *Pharmaceutische Zeitung* had the temerity to remark concerning this that it ventured to doubt whether the Government had any right to attempt to take away from the Prussian citizen his inviolable freedom of discussion, and concluded with the observation that the time was happily past when a Government could suppress by mandate unwelcome opinions. The Government had the best of the next round, as already

reported, but the fight may not be ended yet. The *Pharmaceutische Zeitung* has got hold of a good phrase in the "inviolable right of the Prussian citizen," but it is a poor thing as a phrase only.

## AUSTRALASIAN NEWS.

THE following are items of news from the February number of *The Chemist and Druggist of Australasia* :—

FOR THE BUNNIES.—The tender of Messrs. Roecke, Tompsitt & Co., has been accepted by the Lands Department for the supply of hisulphide of carbon during the current year, at 5½d. per lb.

A SALT COMPANY.—A. Felton, F. S. Grimwade, R. J. Harvey, and A. Shaw, trading under the name of "The Australian Salt Manufacturing Company," are applying for a lease for twenty-one years, for the manufacture of manurial salt, of 3,584 acres, or thereabouts, in the parish of French Island.

EXTRACT OF MEAT IN QUEENSLAND.—Cattle from the northern districts return about 35s. a head to their owners if brought to southern markets; they should average about 800 lbs., and such a beast should yield about 280 lbs. of tallow, 12 lbs. to 15 lbs. of extract, also hide and manure, worth about 6l. 10s., with expenses, reckoned at 21s. An influential meeting, at the Union Mortgage and Agency Company's office, discussed the question of establishing meat extract works at Normanton, and estimated the capital required, to treat sixty beasts a day, at 5,700l. The meeting seemed doubtful as to the profits, and appointed a committee to report further later on.

BOTANICAL EXPLORATION IN QUEENSLAND.—Mr. F. M. Bailey, Colonial Botanist, last winter accompanied Mr. A. Meston and a party to the Bellenden-Ker (Wooroonooran) Range on an exploring expedition. He astonished his companions by his endurance and good spirits, and did fine work in investigating the flora, although the fact that it was the winter season diminished the number of specimens in flower. His report to the Secretary for Public Lands has recently been issued, in which he describes, besides the known species, no less than thirty plants new to science.

PHARMACISTS IN QUEENSLAND.—The pharmaceutical list or register of Queensland for 1890 was issued early in January. The highest number on the register was 307; the total number now on register is 192, showing that 205 names have been removed. The qualifications registered are as follows :—

Registered under Medical Act of 1867 .. ..	115	} 151
Examination, Queensland .. ..	36	
A.P.S. Great Britain .. ..	17	} 22
Chemist and Druggist of Great Britain .. ..	3	
Pharmaceutical Society of Ireland .. ..	2	} 19
Pharmaceutical Society of New South Wales .. ..	12	
Registration, New South Wales .. ..	7	

THE TASMANIAN LICENSING ACT AND CHEMISTS.—The new Tasmanian Licensing Act, 53 Vict., No. 37, defines a medicinal liquor as including any beverage containing 2½ per cent., or more, by weight, of alcohol or other intoxicating spirit or ingredient, but not the ordinary malt liquors, wines, or spirits, or ginger, hop, or spruce beer, or other beverages containing less than 2½ per cent. of alcohol. This has been said by the Attorney-General to be specially directed against hop hitters. The penalty for selling medicinal liquor without a license is 25l., and there is the same penalty on the person to whom it is sold, unless he turns informer, and if the penalty is not paid the offender may be imprisoned for not more than nine months. But Section 145 says :—

"Nothing in this Act contained shall extend to known and practising physicians, surgeons, apothecaries, chemists, or druggists, selling liquor simply as a medicine or for medicinal purposes."

The fee for a druggist's license, entitling the holder to sell any quantity of medicinal liquor, is fixed at 5l. This has been taken out by two Hobart chemists, who are also manufacturers of cordials, but others do not see what medicinal liquor they sell which is not for medicine or medicinal purposes, and mean to fight any attempt to enforce the penalty.



## Legal Reports.

### ON SALE OR RETURN.

IN the City of London Court on March 14, before Mr. Commissioner Kerr, Messrs. E. Jacobs & Son, who carry on business as the Veterinary Medicine Manufacturing Company, 103 Houndsditch, E.C., sought to recover the sum of £17s. for goods supplied to Mr. Walter Griggs, chemical dealer, of Wealdstone.

Mr. E. B. Tattershall, who appeared for the plaintiffs, said that they obtained an order from the defendant for some of their patent chemical goods, which were duly sent. They were entrusted to the defendant on sale or return, but the limit of time was six months. He had kept the goods longer than that, and accordingly they were bound to refuse to take them back. When the goods were sent the defendant said he would do his best to work up a connection for the sale of them. He produced the order.

The defendant admitted the signature was his.

Mr. Commissioner Kerr: Well, what about this stuff, Mr. Griggs?

The defendant said he had returned the goods on October 4 last. He produced the receipt of the railway company.

Mr. Tattershall said they had never received the goods. Furthermore, the defendant sent the goods back after the proper time.

Mr. Commissioner Kerr thought equity would relieve the defendant of that difficulty. Perhaps the goods were at the railway station now waiting for the plaintiffs.

Mr. Tattershall: But they have never been tendered.

Mr. Commissioner Kerr said he looked at those contracts very critically.

Mr. Tattershall knew the learned judge had an unalterable opinion about travellers getting orders in the country out of people by force, but this was an exceptional case. The defendant sent the order quite voluntarily.

Mr. Commissioner Kerr: You wanted him to get a connection for you, Mr. Tattershall, and he has failed to get it. The goods are at the railway station.

Mr. Tattershall: But we have not got them.

Mr. Commissioner Kerr said a man in the country could not be expected to comply with all the conditions of a contract such as this. The defendant did not read the contract as a lawyer would. The defendant's letter said he would do his best, and that he had done.

Mr. Tattershall pointed out that defendant had sold some of the goods.

The defendant admitted that was so to the extent of 12s. 3d.

Mr. Commissioner Kerr: You ought to have paid that into Court. There will be judgment for the plaintiffs for 12s. 3d., but that is all.

Judgment accordingly.

### ENO v. DUNN.—THE "FRUIT SALT" CASE.

THE further hearing of the appeal of *Eno v. Dunn*, which was adjourned from Monday week, was resumed again on March 17 in the House of Lords, before the Lord Chancellor, Lord Herschell, Lord Watson, Lord Macnaghten, and Lord Morris. The case, as is well known, arises out of an application by Messrs. W. G. Dunn & Co. to have their trade-mark, "Fruit Salt Baking-powder," registered. The application of the respondents was resisted by Mr. Eno on the ground that they had no right to the use of the words "fruit salt." Both Mr. Justice Kay and Lord Justice Cotton came to the conclusion that not only was it the intention, but that the probable result of the trade-mark with "fruit salt" in a prominent place would be that purchasers and those who saw the advertisements would imagine that this was another adaptation of Mr. Eno's invention. Lords Justices Lindley and Fry, however, took an opposite view, so that judgment went in favour of Dunn. Eno appealed, and the arguments of his counsel were reported by us last week.

Mr. Moulton, Q.C., in continuing his arguments for the respondents, maintained that Dunn's trade-mark was not calculated to deceive, either as to the nature or the origin of

the article to which it was applied. The appellant had no trade-mark in the words "fruit salt," nor had he had any exclusive right to their use. Fruit salt was not common to both preparations.

The Lord Chancellor: Bi-tartrate of potash was common to both.

Mr. Moulton: It was not in Eno's preparation.

The Lord Chancellor: On the contrary, I understood it formed a great part of it. And do you mean that hi tartrate of potash cannot be made out of fruit?

Mr. Moulton: No; but in that case it is my client who ought to succeed and who is entitled to the use of the words "fruit salt," because his preparation is made from salts common to fruit, whereas it is put forward on behalf of Eno that his description is a misdescription.

The Lord Chancellor: So that you say Eno ought never to have been registered, and you ought to have been, because yours is the real thing.

Mr. Moulton: If that had been the issue, I think we could have sustained the proposition. There is no doubt that hi-tartrate of potash is pre-eminently a fruit salt.

Lord Herschell: Mr. Clayton, the chemist, says:—"There are also some scientific grounds in support of the view that the term 'fruit salt' is fairly descriptive of Mr. Eno's preparation. The term 'fruit salt' might be applied to any compound of a metallic or basic radicle and an acid radicle occurring in fruit. It would thus be accurate, even from a scientific point of view, to describe potassium hi-tartrate or cream of tartar as a 'fruit salt' or a salt from or in fruit. And although I admit that I do not know of the expression 'fruit salt' having been scientifically applied to any one particular chemical compound, I have seen statements by chemists of repute of the composition of 'fruit salt' in which the saline constituents have been grouped together under the denomination of 'salts.'" I would not say after that that the description of Eno's preparation is not descriptive.

Mr. Moulton: Our evidence went to show that the word "fruit salt" could be applied to some of the ingredients in Eno's preparation, but Eno's evidence, on the other hand, was that it could not be so applied. Eno wanted to show that it was not descriptive, but that it was misdescriptive. They perpetually say it is a fancy term, but I say, so far from being a fancy term, the words "fruit salt" have an ordinary meaning. We say "fruit salt baking-powder" is a proper description of our preparation, apart from Eno altogether.

Lord Herschell: Do you mean a proper scientific description, because I doubt whether "fruit salt" would convey to any human being who had not studied the subject what the substance so described was.

Mr. Moulton: "Fruit salt" tells you that it is salt derived from fruit.

Lord Herschell: Would this be popularly understood as salt at all?

Mr. Moulton: I think so, and your lordships can scarcely say that "fruit salt baking-powder," apart from Eno, was not a fair description.

Lord Herschell: I do not say it is an unfair description.

The Lord Chancellor: I think you are beginning to use terms in an unnatural sense. When you talk of a scientific description, a description to whom? Take antipyrine—I believe the proper chemical description is that it is one of the febrifuges.

Lord Watson: So far as I can understand the evidence of Mr. Clayton, they think there are three senses in which the word can be used. There is, first, the popular sense; then there is the scientific sense; then there is a sense which I never came across before—a sense which is not popular, but can be used without scientific impropriety. (Laughter.) I do not know that sense.

Mr. Moulton: If I may put my proposition, I do not think it is necessary to carry it so far. I submit, if the words are common words in the English language, and have been used in such a way as to tend to describe, they need not absolutely be descriptive.

The Lord Chancellor: I suppose plum-pudding has come to indicate one particular composition; but I suppose there might be a pudding with plums in it which was not a plum-pudding in the popular sense.

Mr. Moulton: Eno uses the words "fruit powder," "fruit saline," and "fruit salt." I submit that "fruit salt" is neither more nor less descriptive than "fruit powder."



Lord Herschell: I doubt whether "fruit powder" is descriptive at all.

The Lord Chancellor: Date coffee would be fruit powder. (Laughter.)

Mr. Moulton: I suppose it would; but if the words are descriptive, then they have always been excluded from the privilege of a trade mark. Take the case of "porous plaster."

The Lord Chancellor: I suppose "porous plaster" could not be registered by itself, but the name of a person attached to it could be.

Mr. Moulton: Exactly; and I say that "fruit salt" by itself is in the same position as "porous plaster."

The Lord Chancellor: Quite so; and for that reason it was taken off the register.

Lord Macnaghten: I thought it was taken off the register because it could not be proved that it had been used separately. It was not taken off because it was descriptive. It was abandoned, was it not?

Lord Herschell: If Eno could have proved that it was used before 1875, his registration would have been perfectly good, although descriptive.

Mr. Moulton: No; because it had to be a special and distinctive word before 1875.

Lord Macnaghten: Eno could not prove that it had been in use a sufficient time as a trade-mark before 1875.

The Lord Chancellor: That is clear; it is not a trade-mark.

Mr. Moulton: No. In the Court of Appeal his learned friends said there was no intention to give them the exclusive use of the words "fruit salt." But what I say is that the arguments of the appellants would secure them an exclusive right to "fruit salt," which they had not already got.

The Lord Chancellor: As I understand it, "fruit salt," without Eno's name, has been refused registration, or abandoned—I don't say which—and "fruit salt" without his name is not a trade-mark.

Lord Macnaghten: But it may be a good trade name.

The Lord Chancellor: But to be a good trade name, you must show that this is not an interference with trade.

Mr. Moulton: Quite so; that is the difficulty I am in.

Lord Macnaghten: But here there is no question as to interference with trade; it is a question between you and the public.

Mr. Moulton: The question is, would a Court of Equity refuse to protect a contract for the sale of 10,000 cans of Dunn's fruit salt baking-powder, because it was the sale of something calculated to deceive?

Lord Herschell: I do not think it is a fair test.

Mr. Moulton: But is that not the test in the Act of Parliament?

Lord Herschell: Suppose you put on part of your labels the words "the principal ingredient in this baking-powder is Eno's 'fruit salt.'" Would you be allowed to register a trade-mark which contained those words?

Mr. Moulton: Certainly not; because, suppose there was a contract for sale of the goods, and it could be proved that the goods had a label that it was Eno's fruit salt, and it was not, the Court would not give protection. The words have got an intelligible meaning.

Lord Herschell: But you are not entitled to use them so that they might deceive people into the belief that the ingredient was Eno's preparation.

Mr. Moulton: It would be no reason for refusing to allow us to use the words to say that some people might be mistaken by them. I am not bound to avoid everything which might possibly lead to a mistake.

Lord Herschell: I should like to see everything in the Act which deprives the Court of absolute discretion as to the preventing of registration.

Lord Watson: It seems to me the statute gives you no right at all to register unless you can show that you do not deceive. That is your whole right.

Mr. Moulton: It may be that apart from section 73 your lordships have power to refuse registration, but I submit that section 73 only applies in cases where the Court would say you are disentitled to protection. Suppose there was no question about Eno. If we sold Dunn's fruit salt baking-powder, and it could be shown that the chief ingredient was a thing most properly known as fruit salt, would a court of

law say there was something discrediting us from protection?

Lord Macnaghten: If the name of Dunn's fruit salt baking-powder indicated that Eno's preparation entered into the composition of it, I suppose you would be disentitled?

Mr. Moulton submitted that anyone had a right to use the expression "fruit salt." Messrs. Dunn disclaimed any exclusive right in the words, and only wanted to describe their powder. Apart from Eno the description was perfectly natural. "Fruit salt" was a more pleasing description than "mineral salt." "Fruit salt baking-powder" was a description which would be understood now, and would have been twenty years ago, and to support the appeal would be to destroy the use of the words in ordinary parlance.

Lord Herschell: I do not see how you can say destroy the words in ordinary parlance, when they were not in ordinary parlance. Can you give us any instance of the use of the words before Eno used them?

Mr. Moulton: I do not think that is the same issue. What I say is that they were well-known English words which could be put together.

Lord Watson: You are quite entitled to say that "fruit" and "salt" were words in common parlance.

Lord Herschell: Yes, but the combination was never used before. Eno hit upon the name, and that name never meant anything to anybody until it was applied in the public mind to a particular preparation. Nobody ever wanted that combination of words to describe anything before, although the English language has existed for some centuries.

Lord Macnaghten: And although these are two of the commonest words in it.

Mr. Moulton: Mr. Hehner, the chemist, in his affidavit says, "Potassium bitartrate (cream of tartar) is a fruit salt, and is indeed the most important fruit salt known. This is a fact that I do not think any chemist will dispute." If that is so, the words cannot be said to be made more intelligible by Mr. Eno.

Lord Herschell: Would that language have been used but for Eno?

Mr. Moulton: I cannot imagine any difficulty in understanding the words twenty years ago.

Lord Herschell: But you do not find them used in any chemistry books.

Mr. Moulton then passed to the question of its being used as a trade word, and maintained that if the words could be understood in the qualification in which Dunn used them, and if, apart from Eno, the words were intelligible, then he said that nothing Eno had done in another trade could take away from Dunn the right to describe his goods in this way. Previous decisions had gone upon the assumption that, if descriptive, words could not be used as a trade-mark at all. This was clearly a case, he contended, in which the appeal ought to be dismissed, and the judgment of the Court of Appeal sustained.

Mr. Birrell followed on the same side, contending that as the words were descriptive they could not be the subject matter of a trade-mark. It would be impossible for any trader to make the get-up of his goods more unlike Dunn's and Eno's.

Lord Watson: But you are not going to dangle these two packets before the eyes of everyone who wants to buy Dunn's baking-powder.

Mr. Birrell thought no one would like it to be supposed that baking-powder contained Epsom salts. The question really was, did the words "fruit salt," by means of Eno's advertisements, become his exclusive property? Except in the case of something so ridiculously dissimilar as an umbrella or a walking-stick. Unless their lordships were satisfied that Messrs. Dunn had fairly given rise to the conviction in people's minds that their article was Eno's, then they ought to allow the decision of the Court of Appeal to stand.

The Attorney-General, in replying for the appellant, said it was a mistake to suppose even for the purpose of the baking-powder that they asked for an exclusive use of the words "fruit salt." Mr. Moulton said no one could be deceived, but that was not the evidence of fifteen or sixteen grocers and chemists. The only evidence the respondent could bring on the other side was that of four chemists, but not one witness in the baking-powder trade or



the food and drink trade in England was brought forward to give evidence in support of the contention that the public could not be misled. He submitted that the Controller was not entitled to register as a material part of Dunn's mark "fruit salt baking-powder" in such a connection that it might mislead persons into thinking another well-known article was used in its composition. It could no longer be said this was the only way Messrs. Dunn could describe their goods. The affidavits disclosed half a dozen expressions which would convey the same meaning. He asked their lordships to hesitate before reversing the decision of Mr. Justice Kay, in which Lord Justice Cotton concurred that Dunn took this name with the view of getting some of the benefit of Mr. Eno's reputation. It was strange that it was not until Dunn came to England to start a trade here that the necessity of describing their baking-powder by the name of "fruit salt" appeared to arise.

The Lord Chancellor intimated that their lordships would reserve judgment.

#### THE APOTHECARIES' SOCIETY AND THE BIRMINGHAM HERBALIST.

IN the Queen's Bench Division of the High Court of Justice on March 20, the case of the Master and Wardens of the Apothecaries' Society v. Welch came before the Master of the Rolls and Lord Justice Fry, sitting as a divisional court, in the form of an appeal by the defendant from the judgment of the Birmingham County Court judge, who fined him 20*l.* for practising as an apothecary at Birmingham without the necessary qualifications. Mr. Stanbury Eardley was counsel in support of the appeal, while Mr. Houghton was counsel for the Society, and opposed it.

Mr. Eardley, in supporting the appeal, said the county court judge held that a herbalist selling herbal medicines to a man in sound health was liable to a penalty for practising as an apothecary, and the grounds of the appeal were that the judge was wrong, as Welch was protected by 34 and 35 Henry VIII. and the Stamp Act, as it was found that the defendant had a stamp licence. The appeal ought also to succeed because the Apothecaries' Society had not produced the charter granted to them, and without this charter the county court judge was not in a position to say what an apothecary was.

Lord Justice Fry said he could read the preamble to the Act, which set out the original charter. But, as a matter of fact, what did the defendant deal in?

Mr. Eardley handed to their lordships some large placards setting out advertisements for herbal pills, &c., and said that the defendant dealt in herbs of a medicinal character.

Lord Justice Fry remarked that "pills" came within the very words of the Act.

The Master of the Rolls: Just hear what the informer says. "I am in perfect health, but I told the defendant I felt nervous and out of sorts, had a headache, and suffered from shortness of breath. He said: 'Is this brought on by —?' " Oh, he asked a very impertinent question. (Laughter.) The defendant said: "The medicine I shall give you will take some hours to make up, but it will be the same as they would give you at the skin and lock hospital. You are suffering from nervous debility. The medicine I will give you will put you right. I charge 5*s.* for the first bottle, and 2*s.* 6*d.* afterwards, but you had better pay me 5*l.* for a cure." That looks as if the defendant had acted as an apothecary.

Mr. Eardley submitted not, as the defendant did not examine the man.

The Master of the Rolls: But he did what apothecaries do. They advise you to take their medicine, and then mix it up and sell it to you.

Lord Justice Fry: I do not think you can say he did not practise the art or mystery of apothecaries.

Mr. Eardley, in further argument, submitted that the appeal could not succeed as the society had not produced their charter, and had not proved a resolution of the master and wardens of the Apothecaries Society authorising this prosecution, as they were required to do under section 8 of the Act. The defendant mixed up medicines, and then put a sixpenny or shilling stamp on the bottles.

Lord Justice Fry said he did not put a sixpenny stamp on the boxes of pills sold for threepence.

Mr. Eardley contended that the defendant could not be said to have acted as an apothecary, because the informer in this case was in perfect health.

The Master of the Rolls: Then what do you mean by telling him to take medicine three times a day, and come to you again?

Mr. Eardley: He came to trap us, and we fooled him to the top of his bent. (Laughter.)

The Master of the Rolls: Oh, no; he fooled you. (Renewed laughter.) Supposing a fashionable doctor prescribes for ladies who are not ill—would you contend that he was not a physician, because his patients were in good health?

Mr. Eardley said the two cases were not similar. Lord Justice Cresswell had described an apothecary as one who "attended diseased persons."

Mr. Houghton observed that a herbalist in order to come under the protection of the Herbalists Act, must "administer to outward diseases only, and for the good of humanity and without reward." (Laughter.)

Mr. Eardley, in conclusion, insisted that a person might, by common law, administer and doctor people, provided he did not hold himself out as a qualified medical practitioner; and the defendant Welch, when asked by the informer if he was the doctor, replied, "I am not a doctor, but I am a person who prescribes medicines."

Without calling upon Mr. Houghton to argue the respondents' case.

The Master of the Rolls proceeded to give judgment. He said the defendant was fined for a breach of the Apothecaries Act—for having acted as an apothecary without the necessary certificate; and it was important to ascertain whether he had confined himself to that which a herbalist might do, or had exceeded it, and done something which only a certificated apothecary might do. In this case the defendant did not give the customer a medicine asked for, but prescribed according to his own judgment, and gave him the medicine which he thought right for the disease which he supposed the customer was suffering from. Considering that there was evidence that he did this on three other occasions, the county court judge was obliged to infer that it was his practice to advise people who came in, to examine them, to pretend to come to a judgment, or to come to a judgment, and then to prescribe medicine. Is that going beyond the duties of a herbalist? He (the Master of the Rolls) distinctly came to the conclusion that there was nothing in any Act of Parliament which entitled a herbalist to do that, and the county court judge was right in his decision. The defendant here had acted as an apothecary, and had not the certificate of competency. He had done this, not in a casual way, but as part of his business. No doubt there were some herbalists who were perfectly honest and respectable people; but there were also herbalists who carried on a most dangerous business—a secret, criminal, abominable, and wicked business—and they were much to be guarded against. In this case the judge below was perfectly justified in holding that the defendant acted as an apothecary, and the appeal must be dismissed.

Lord Justice Fry concurred, and the appeal was dismissed with costs.

#### BANKRUPTCY REPORT.

*Re* PHILIP RALPH, Hereford, Chemist and Druggist.

AT the Hereford County Court on March 11, before Judge Melville, Mr. White, solicitor, again applied for the discharge of this bankrupt. His Honour inquired if Mr. White had anything to say to shake the judgment in the Lord Colin Campbell and Burgess cases.

Mr. White said he had read the two cases very carefully, and he could not see any analogy between these and the case now before the Court. In those cases there was evidence of misconduct.

His Honour: In this case the Official Receiver has certified that the bankrupt was guilty of certain offences under section 28, and how can I say that bankruptcy has been caused by misfortune without misconduct on his part?

Mr. White argued that the misconduct reported by the Official Receiver had not caused the bankruptcy.



His Honour: The bankruptcy might be caused by misfortunes, but it must be without misconduct.

Mr. White: The Official Receiver entirely exonerates Mr. Ralph from anything like misconduct which affects his creditors, and I do not see how we can go beyond that.

His Honour: Was it caused by misfortune without misconduct? In the two cases I have referred to the misconduct did not cause the bankruptcy.

Mr. White: I think it did. I am afraid your Honour is putting too much upon these offences. The Official Receiver has reported that he kept no books of account. That seems very formidable, but the information will show that he did keep them.

His Honour said he could not go behind the Official Receiver's report. He said he had kept no books in relation to his tenancy of the racecourse.

Mr. White: The Official Receiver says that he did keep books of account showing the transactions with his customers in the chemists' business, and also in the business of the *Hereford Journal*. They were really his two businesses. The race-course was really a bit of amateur farming.

His Honour: The Official Receiver also says, "He continued to trade after knowing himself to be insolvent." After that report it is impossible to say the bankruptcy was caused by misfortune without misconduct.

Mr. White: I would suggest that you give him a certificate, and allow the Board of Trade to interfere if they think fit.

His Honour: I certainly would not do that.

## Gazette.

### PARTNERSHIPS DISSOLVED.

Ball & Charles, Burslem, chemists and druggists.

Day & Co., Wimbledon, mineral-water manufacturers.

Dean, John, & Co., Tipton, manufacturing chemists and washing-powder makers.

Macpherson & Woodroffe, Queen's Road, Brownswood Park, and Mildmay Park, Stoke Newington, physicians and surgeons.

### THE BANKRUPTCY ACT, 1883

#### RECEIVING ORDERS.

Brown, Henry William, Ealing, dentist.

Coulthard, William, Gee Cross, near Hyde, mineral-water manufacturer.

Franklin, Edward, Ipswich, dentist.

Haynes, Henry Crane, Brackley, mineral-water manufacturer and coal merchant.

Ward, Jarvis, & Ward, Eliza (trading as Jarvis Ward), Barnsley, ginger-beer manufacturers.

#### FIRST MEETINGS AND PUBLIC EXAMINATIONS

Druiff, Lionel (trading as Henry Laurance and the Society of London Opticians), Hatton Garden, Holborn, and Doughty Street, wholesale and manufacturing optician—March 27, Bankruptcy Buildings, Portugal Street, Lincoln's Inn Fields; April 17, 34 Lincoln's Inn Fields.

Young, Adam, Sevenoaks, surgeon and general medical practitioner—March 2, Bankruptcy Buildings, Portugal Street, Lincoln's Inn Fields; April 1, Town Hall, Tunbridge Wells.

#### ADJUDICATIONS.

Brown, Henry William, Ealing, dentist.

Young, Adam, Sevenoaks, surgeon and general medical practitioner.

#### NOTICES OF DIVIDENDS.

Aubert, William, Malden Lane, Strand, Baldwin's Gardens, Gray's Inn Row, and Bedford Hill, Balham, printer; also manager to a wholesale perfumer—first and final div. of  $\frac{1}{3}$ d., March 20, Messrs. Pratt & Norton's, 9 Old Jewry Chambers, E.C.

Seager, James Morrison, late of Gracechurch Street, City, Bartlett Street and St. Leonard's Road, Poplar, and Holland Park Gardens, Notting Hill, chemical manufacturer and commission merchant—first div. of 2s. 3d., March 20, Messrs. Pratt & Norton's, 9 and 10 Old Jewry Chambers, E.C.

### THE BANKRUPTCY (DISCHARGE AND CLOSURE) ACT, 1887.

#### ORDER MADE ON APPLICATION FOR DISCHARGE.

Charlton, Samuel, Manchester and Clayton (trading with J. Charlton, under the style of Charlton Brothers), late chemical manufacturer, but now of no occupation—unconditional discharge.

#### APPLICATION FOR DEBTOR'S DISCHARGE.

Heath, John Henry, Streety Road, Willersden, late of Victoria Villas, Kilburn, and Clifton Hill, St. John's Wood, chemist & traveller—April 24, High Court of Justice in Bankruptcy.

### MARRIAGE.

[Notices of Marriages and Deaths are inserted free if sent with proper authentication.]

CLAYTON—BOTHAM.—On March 18, at St. John's Church, Sheffield, by the Rev. T. Houghton, B.A., assisted by the Rev. N. L. Aspinall, M.A., Thomas Clayton, chemist, Highbury, London, to Mary Bland, younger daughter of William Botham, chemist, Sheffield.

### DEATHS.

ADAM.—On February 26, Mr. James Bell Denovan Adam, chemist and druggist, 70 Fernhead Road, Harrow Road, London. Aged 36.

BELLINGHAM.—On March 10, at 63 Rye Lane, Peckham, Henry James Bellingham, pharmaceutical chemist, in his 66th year. A Benevolent Fund annuitant.

BIRSS.—At Middlefield, near Aberdeen, on March 12, John Milne, youngest son of Robert Birss, chemist, Aberdeen. Aged 21.

FIELD.—On March 4, Mr. Harry Eugene Field, chemist and druggist, Oxtou Road, Birkenhead. Aged 48.

HIGGINSON.—On March 10, at Kerfield Terrace, New Ferry, Cheshire, Mr. Henry Higginson, a well-known botanist, at the age of 74. Mr. Higginson was born at Newcastle, Staffordshire, in 1816, and apprenticed to Mr. Gilbert at Sandbach, Cheshire. About 1838 he commenced business at Audlem, in the same county, with some measure of success; his wife's brother being agent to Lord Conhermere influenced many of the tenants to go to him as customers. He was the maker of a "Cheshire sauce," which acquired some popularity. For the last twenty years of his life he devoted himself almost exclusively to the study of botany, and to mounting botanic specimens in the form of herbaria, suited to medical and pharmaceutical students. They were beautifully done, and sold at such reasonable prices as to leave him but little remuneration for his labour. They are owned not only by private individuals, but are to be found in many colleges and schools throughout the country. A daughter with whom he resided at the above address, and who is the widow of a surgeon, will continue to supply these sets. Mr. Higginson was a man of good culture and agreeable disposition. He will be much missed by a large number of friends and persons who appreciated his very useful work.

JENKINS.—On February 21, at the Crofts, Nantwich, Mr. William Alphonse Jenkins. Aged 24.

KEITH.—On February 21, Mr. John Keith, pharmaceutical chemist, Kirkgate, Leeds. Aged 33.

ROPER.—On March 8, Mr. Thomas Hill Roper, chemist and druggist, Church Street, Newent, Gloucestershire. Aged 43.

STEVENS.—On February 26, Mr. Alfred Stevens, chemist and druggist, Borough High Street, Southwark. Aged 68.

STEWART.—On March 6, at 21 Camden Road, N., Mr. Alexander Young Stewart, formerly of Apothecaries' Hall. Aged 48.

WARTS.—A correspondent of the *Scientific American* states that a very strong solution of washing-soda applied four or five times a day removes warts in a few days.



## Trade Notes.

Mrs. FOWLIE announces that she will carry on the business of her late husband at Turriff under the superintendence of Mr. D. McGeorge, lately with Hamilton, Long, & Co. (Limited), Dublin.

MESSRS. BRIGONNET & NAVILLE, of La Plaine, Saint Denis, France, have appointed Mr. B. Kühn, of 36 St. Mary-at-Hill, Eastcheap, E.C., to be their sole agent for the sale of Exalgine (Brigonet) in the United Kingdom. We hear that circulars will be distributed to the trade shortly.

MR. JOHN T. LETCHER, of Truro, Cornwall, manufacturer of mathematical, philosophical, optical, drawing and mining instruments, and blowpipe apparatus, sends us a copy of his illustrated catalogue. Amongst the goods which Mr. Letcher offers, are kinds which chemists can make a speciality of, and the catalogue is an excellent guide to buyers.

THE DEE OIL COMPANY (LIMITED), whose petroleum jellies we had occasion to notice favourably some time ago, are putting up the finest variety, known as "Edible Salvo Petrolia," in collapsible metallic tubes. In this form it is portable and easy of application. This refined product is free from odour and taste, and is much used for throat affections.

As an instance of the extent to which the seed trade is cultivated by druggists in our colonies, we may mention that we have received this week a copy of a nicely illustrated "seed annual" of seventy-six quarto pages, which is issued by Mr. David Clarke, chemist and druggist, Maryborough, Queensland. In this connection we may also mention that Mr. H. G. Maddison, chemist, Foulsham, Norfolk, asks us to say that he will send a copy of his seed catalogue to any chemist who asks for it.

MESSRS. WM. RANKIN & SONS, Glasgow, makers of cork bath-mats, which they offer to the public through chemists and druggists, print on extremely thin slices of cork very neat handbills regarding these mats. It will be remembered that a continental house employed advertisements similar to these at the Paris Exhibition. Some of Messrs. Rankin & Sons' cork circulars are rather amusing reading, and chemists would do well to secure a few of them.

MR. J. R. LAMBERT has left London this week for Australia, to represent in that part of the world the house of Henry Gilbertson & Sons. Mr. Lambert takes with him a handsome assortment of samples of the goods for which this firm has acquired a reputation, from the cut-glass articles for which they have always been noted, to the multitudinous variety of druggists' sundries which they have developed in later years. Mr. Lambert is not a stranger in the Australasian Colonies, but this is the first time the firm have addressed themselves to the druggists there by a personal representative.

MEDICINE CHEST.—Messrs. E. Bentley & Son, of Tabernacle Street, E.C., whose reputation in the medicine-chest line is well known to the trade, have sent for our inspection a very neat portable case made of japanned tin. The case measures 9½ in. x 6 in. x 6 in., and contains sixteen stoppered bottles, a measure, tray for a set of scales and weights, spatula, &c., which are supplied, and an apartment for surgical dressings. The case is an example of good workmanship, and as it is compact, portable, and designed for the most useful purposes, it should prove to be an acceptable article for colonial as well as home trade.

WE have received a copy of the tenth annual issue of "Newbery's Catalogue of Medicines, Perfumery, Mineral Waters, Druggists' Sundries, &c." The compilers tell us that, compared with last year's catalogue, 732 new items have been added, 232 removed, and that 451 quotations have been modified. Among the interesting features of this catalogue are some valuable comments on the Medicine Stamp Acts, and a great deal of information about medicated wines and licences for selling these. As a curiosity, the earliest catalogue of proprietary medicines sold by John Newbery, and perhaps the first ever published, is reproduced in this catalogue. The firm believe it to have been issued about 1750. The catalogue is bound, and is arranged very conveniently for reference.

## Personalities.

MR. JOSEPH BALKWILL, of Kingsbridge, has disposed of his business to Mr. R. McAll Stewart. Mr. Balkwill is to study for the medical profession.

MR. A. J. WING has succeeded to the chemist and perfumery establishment at 110 Powis Street, Woolwich, Mr. R. R. Juler having retired.

MR. J. FROM, of Sheffield, has purchased the business of Mr. J. Colluck, of Tickhill, near Rotherham, through Mr. Brett, of Leicester.

MR. W. M. SEARBY, pharmaceutical chemist and professor in the Californian College of Pharmacy, is to visit this country shortly. Mr. Searby is an Englishman.

MR. PERCY SMITH has left the management of Messrs. Burroughs, Wellcome & Co.'s chemical and drug works at Dartford, and will be succeeded by Mr. Searles, from Messrs. Howards & Sons.

THE CHEMICAL SOCIETY was represented at the Kekulé anniversary by the senior secretary, Professor Armstrong, who presented, on behalf of the society, an address of congratulation to Professor August Kekulé.

THE old-established chemist and druggist and wine and spirit merchant's business at Stokesley, Yorkshire, carried on for many years by Mr. R. Calvert, has been bought by Mr. G. W. West, of Worthing. Mr. Brett, of Leicester, valued for both parties.

THE visit of Dr. Voelcker, the agricultural chemist, to India, in order to advise the Government of India as to "the best manner of improving Indian Agriculture by scientific means," does not please the *Indian Agriculturist*, which after an expression of doubt in regard to the fitness of agricultural chemists to advise or direct farmers, states that what it fears is, "that as the Government of India has no one, either in itself or on its staff, with any real knowledge of agricultural practice, Dr. Voelcker's visit may result merely in the recommendation of most elaborate scientific research on obscure questions of agricultural chemistry, whilst we possess but few data on the details of agricultural practice, in the collection of which the direction unaided of an agricultural chemist would be useless, even if his training and experience were such as to enable him to discern the true points at issue."

CALOMEL AND HYDROCYANIC ACID.—Fouquet has ascertained by experiments that when calomel and hydrocyanic acid are allowed to interact mercuric chloride is not formed, but that the reaction is represented as Scheele stated it, viz.:— $2\text{HgCl} + 2\text{HCN} = \text{Hg} + \text{Hg}(\text{CN})_2 + 2\text{HCl}$ . When the hydrochloric acid reaches a certain amount the reaction stops, and, although a small quantity of mercuric salt is formed, Fouquet is of opinion that pharmaceutical preparations in which the reaction has occurred are not more dangerous on account of the mercuric cyanide formed than they are from the corresponding quantity of hydrocyanic acid originally present.

THE PILL-MILL.—Rarer by far than the black swan is that freak of nature, the Englishman who cannot take a pill. So long as England continues to spin down the ringing grooves of change, so long will the nimble pill continue to spin down the British gullet. The Englishman can better bear to be cut off his beer at luncheon and his grog at the nightcap hour than to be divorced from his pill-box. So tightly does he stick to his little box of cardboard wherever he may go that even the uncle of the exquisite Lord Dunsyre, it will be remembered, sent his nephew a sample of the soil of America in a pill-box. According to THE CHEMIST AND DRUGGIST, more than five and a half million pills go to warm the cockles of the heart of the great British nation every day—one pill a week to every creature in these islands whose name is recorded at Somerset House. Are you going out to dinner? You take a pill to help digestion. Have you dined too well? You take another. Has Angelina declared that she will ever be to you as a sister—who allows no brotherly privileges—you fall back upon melancholy and Mr. Becham.—*St. James's Gazette*.



## Pharmaceutical Society of Great Britain

### NORTH BRITISH BRANCH.

AT the evening meeting, held in Edinburgh, on Thursday, March 20, the *pièce de résistance* was a paper by Mr. David Storrar, of Kirkcaldy, on the future of pharmacy as a trade and as a profession. In Mr. Storrar's belief the evils which chemists are at present suffering from are due in a great measure to the fact that pharmaceutical legislation has hitherto tended to spoil the trade, without creating a profession. Mr. Storrar having briefly reviewed the history of pharmacy from the foundation of the Pharmaceutical Society in 1841, by a few metropolitan chemists and druggists, proceeded to discuss in detail the various causes which had given rise to past legislation. Then addressing himself to the matters which at present affect the trade, he maintained that the professional and trade elements were as antagonistic now as ever, while the growth of professionalism had in certain respects been detrimental to the chemist's capacity for successful trading. What in his opinion was, however, a more serious matter, was the facility with which sharp but unqualified tradesmen could succeed in doing all that the qualified chemist could do by turning himself into a limited company. He also considered that the issue of the Wheeldon case, if it should condemn unqualified assistants, would be most harmful, and he somewhat expressively put it, that it was a case of the registered man getting all the kicks, and the unregistered man taking the halfpence. Subsequently Mr. Storrar addressed himself more particularly to the present condition of the Pharmaceutical Society, as affecting the trade, and discussed in an able manner the defunct Pharmacy Bill, putting in a strong protest against the principle of the 6th Clause. He did not think that the wheels of legislation were hopelessly clogged, but from past experience was inclined to the opinion that something could be done by a united effort to remedy the evils which threaten the trade and are fraught with danger to the public. At the same meeting, Mr. D. B. Dott read papers on "The Estimation of the Urea," "Litmus," and "Uralium," and Mr. George Lunan communicated a useful note on "Ammoniated Tincture of Quinine." In this Mr. Lunan showed that when the tincture is mixed with aerated water a clear solution is formed, because the alkaloid is changed into a soluble carbonate, and acting upon this discovery he had made experiments which enabled him to submit to the meeting a formula for an ammoniated tincture of quinine which mixes clear with distilled water. We shall refer more fully to this, and the other matters which transpired at the meeting, in our next issue.

### MIDLAND COUNTIES CHEMISTS' ASSOCIATION.

A MEETING of the members of the Midland Counties Chemists' Association was held on Tuesday evening at the Mason College, Birmingham, under the presidency of Mr. G. E. Perry. There was a fairly large attendance. A paper was read on

#### THE OCCASIONAL POISONOUS ACTION OF CERTAIN DRUGS,

By W. B. Featherstone, M.D. (London).

The author began by impressing upon members the importance of pharmacists having a knowledge of doses and of the peculiar action which some drugs have on different persons. He ascribed the latter to the idiosyncrasies in the persons who took the drugs, and gave instances where the medicine acted in different ways. He also pointed to conditions under which the prescriber and dispenser came into conflict because of the unusual doses prescribed. In some cases these unusual doses were prescribed intentionally, and occasionally by mistake, and when the latter occurred it was of the utmost importance that the chemist should know the nature of the drug, so as to prevent serious, if not fatal,

consequences. He proceeded to deal with the various poisons in alphabetical order. Arsenic, he remarked, produced a curious effect upon the tongue, which was described as a silver tongue from the peculiar appearance which it presented. As an antidote to this peculiarity he recommended the use of borax. He also emphasised the fact that the time for taking arsenic was immediately after meals. Borax, he went on to say, had a tendency to bring about skin eruptions, which, curiously enough, might be remedied by the taking of arsenic. Iodoform was generally considered to be a comparatively innocent drug, but he recorded cases in which serious symptoms had been produced. Iron was the next drug dealt with. This, he said, although not regarded as a poison, sometimes produced disagreeable results, and doses of it were attended by constipation, followed by a throbbing of the head. This result could be mitigated by the use of chloride of ammonia. Lead applied to the head occasionally penetrated the scalp and got into the brain tissues, and was known to produce insanity. It was especially important that this fact should be known to chemists, as lead was often used in hair washes, and loss of sight sometimes followed upon its frequent application. He explained that mercury was a very common medicine for the cure of syphilis; but he pointed out that the terrible results ascribed to syphilis some fifty or sixty years ago—such as the rotting of the teeth and bones—were due very often to overdoses of mercury. Great care should always be exercised in its administration because of its varied effects on different persons. Consumptives should never get mercury. Sulphate of copper was the best emetic to use in the case of phosphorus poisoning. Potassium salts, whose action depended on the acidulous radical, were attended with serious effects, iodide of potassium often producing a very bad cold; chlorate of potassium brought on hæmaturia, and nitrate of potassium had been known to poison persons. A peculiar effect of silver was that it made the skin a black colour. It was an excellent remedy for epilepsy, and, despite that it blackened the skin, many preferred that contingency to the dangerous consequences of epilepsy. Dealing with organic products, Dr Featherstone said antipyrin was a most dangerous remedy and very uncertain in its character. He drew attention to cases, which had come under his own observation, where small quantities had operated in a very disastrous way. The same remark applied to antifehrin. Atropine had been known to cause death when applied in the form of eye-drops. Camphor, especially the homœopathic tincture, which, quite contrary to homœopathic medicines as a rule, was an exceedingly strong preparation, was known to produce most disagreeable effects. Gelsemium had a curious action on some persons, bringing about paralysis of the third nerve and causing the sensation of the drooping of the eyelid. Opium, especially in persons suffering from bronchitis, was likely to produce deleterious results. It was well known that horses and dogs could not stand opium, and cases had been known where a child had been killed by one drop of the official tincture of the drug. The peculiarities of quinine, were dealt with, and Dr. Featherstone recommended that its administration should be followed by a little brandy or strong coffee; and in speaking of tobacco, he said it occasionally produced spot blindness, and palpitation of the heart.

The CHAIRMAN, in proposing a vote of thanks to Dr. Featherstone, said that during the whole time he had been in Birmingham a medical man had never before been kind enough to read a paper to the members of that association. He hoped the paper read that evening might be the precursor of a series. The paper which Dr. Featherstone had read had been most interesting, and gave a large amount of information. Dr. Featherstone mentioned, in the beginning of his paper, the desirability of pharmacists having a knowledge of the strength and quality of the preparations they dispensed. He thought it would be most offensive of any pharmacist to dispense any single drug that he had not a knowledge of; and, certainly, if he came across what he considered to be an extreme dose, he was not justified, without consulting a medical man, in dispensing it. It was also a *sine quâ non* that a chemist should know something about the therapeutic action of drugs to enable him to be a competent dispenser. (Hear, hear.)

Mr. W. SOUTHALL said Dr. Featherstone had in effect



shown that what was one man's food or medicine was another man's poison.

Mr. CRIPPS said Dr. Featherstone had given them to understand that idiosyncrasy was one of the greatest, if not the greatest and only cause of the peculiar action of drugs; but he (Mr. Cripps) believed there were two other causes. One was the impurity of the drugs used, and the other the difference in the strength of the preparations. In regard to the latter, he had met with tincture of opium, which had been more than double the strength of another sample; he had seen one preparation of belladonna four times as strong as another, and yet all ostensibly prepared according to the Pharmacopœia formula.

Mr. A. SOUTHALL said the information afforded by Dr. Featherstone was just the thing chemists wanted. They did not want to prescribe, or do any naughty things of that kind—(a laugh)—but at the same time, as they had been told, they ought to know a little more about the action of drugs than their examinations required them to know, and the hints they had had that evening ought to bear fruit. The hint with reference to lead-poisoning was especially valuable to them. They, as chemists, thought it right and proper to make up hair-lotions that would strengthen the hair and restore or change it to a beautiful colour. They ought in that case to be very careful what they were doing, for he had, in his small experience, seen very bad results arising from some patent hair-washes. What they had heard in that respect ought to act as a warning to them. He was glad to hear what Dr. Featherstone had said about tobacco. (Laughter.) He fancied there were a great many people who used that very injurious weed, and got the blindness that Dr. Featherstone had told them about. He hoped those persons would leave it off for a little bit, so that they might recover the full effect of their sight. Referring to the relations between medicine and pharmacy, Mr. Southall said that chemists were now joining with the medical profession in making official additions to the Pharmacopœia. That showed they were becoming more closely connected, and he hoped they would both try and endeavour to draw the two professions still closer. (Applause.)

Mr. KENDAL considered the commonest cause of what was attributed to idiosyncrasy was really the variation in strength, especially when they were dealing with organic substances. During the reading of the paper it struck him how very careful a chemist should be to give the exact drug ordered, instead of a drug supposed to be of equal effect. (Hear, hear.) He maintained that a knowledge of therapeutics would not result in making chemists prescribers, but it would make them appreciate more fully the gravity of using medicines, except under the advice of a doctor. (Hear, hear.)

Dr. FEATHERSTONE, in replying, said doctors owed a great deal to dispensers. It was impossible, in making up many prescriptions, for doctors not to occasionally fall into errors, and if a dispenser was at all careless, there might be serious results. His experience of dispensers was, that the less they knew of drugs the more contemptuously did they regard them. The more they knew about the remarkable effects of drugs, the more care they took in dispensing them.

#### MANCHESTER PHARMACEUTICAL ASSOCIATION.

At a meeting of this Society, held on March 12, Mr. W. Wilkinson, vice-president, in the chair, Mr. William Kirkby, F.L.S., pharmaceutical chemist, read a paper on

##### THE ADULTERATION OF DRUGS.

After a lengthy introduction in regard to the claims of chemists to Government protection, Mr. Kirkby said no class could now obtain protection without giving the nation a fair equivalent. If the distributor of drugs was to fulfil his duty to his fellow-citizens, he should first see that his goods were pure. It was not to the point to say that only such-and-such a percentage of adulterated samples was returned by the analysts in their reports. There should not be one solitary instance if it could possibly be avoided. We found that the vegetable drugs—and it was to these he would

particularly direct their attention—were not infrequently replaced in the drug sales by substitutes appearing under the same name. In proof of this we had the cases of the West African pareira brava, the false East Indian ipecacuanha, and the false chiretta (*Ophelia alata*). It happened also that fraudulent admixtures were brought into the country, and found their way into commerce; for instance, cubeb mixed with other piperaceous fruits, saffron mixed with foreign vegetable and mineral matters of nearly every kind, admixture of kamala with sand, and so forth. Numerous instances of admixture were directly traceable to the ignorance of the people who collected the drugs. Aconite was a familiar example. That many of these substitutes and admixtures were detected at the drug sales was greatly to the credit of the buyers who attended. Whilst rendering honour to those wholesale houses which bought only the best articles, it must be borne in mind that the keen competition for business was a powerful incentive for comparatively unknown and small houses to yield to the temptation of buying worthless goods. Then it must not be forgotten that the law demanded no evidence of a knowledge of materia medica from wholesale druggists. They were liable to make mistakes, and, not having studied botanical science, they could not be expected to know the limits of variability in plant-structure. It was probably for some reason like this that the medical practitioner had almost ceased to use strophanthus. Some specimens which had appeared in the market had been found to contain no active principle. The buyers in the drug market, not being acquainted with the distinguishing physical characters of these inert samples, might occasionally have bought them and used them for preparing the tincture, with the result that the remedial action of the physician's medicine had been lost, and he himself disappointed. While speaking of the relations existing between pharmacists and wholesale houses, it was right to mention, with satisfaction, the almost complete confidence existing between them. In some degree this was gratifying, but he could not help thinking that the habit of buying tinctures and other galenic preparations was a bad one. It was a proof of the trustfulness, but not proof of the care which the law expected the pharmacist to exercise in his calling. The possibility of impure drugs being received even from good wholesale drug houses was not a remote one. The education of the qualified man was usually of such a meagre description as to be of but little assistance to him when he had to deal with powdered drugs. How many were sufficiently well equipped to be able to tell whether a sample of powdered rhubarb was pure? Not many, he feared. Indeed, the pharmaceutical knowledge displayed behind the counter was not always even approximately accurate. In illustration of what he said he might mention that a little while ago he had occasion to visit several chemists' shops in search of some powdered ipecacuanha. At one establishment the proprietor informed him that he had used all his stock the previous week for making the wine. This was excellent, however, by another, who, on his first inquiry, doubted whether he had any, but said that if it was wanted "for making the wine, the contained seeds were generally used," at the same time opening a parcel of the coarsely-powdered root. There were many ways in which drugs became unfit for sale. Leaves were not infrequently found to be mouldy through being kept in damp places, roots worm-eaten, powders infested with insects, tinctures deficient in spirit through ineffectual stoppering, extracts dry and hard, and in the case of standardised extract of *ner. vomica* this meant increase of strength. Other examples would occur to them. Cleanliness was not always a strong feature in the storing of drugs, particularly in drawers, which were often badly made. In Mr. Kirkby's opinion the attempts made to secure the purity of drugs by the Pharmacy Act and the Sale of Food and Drugs Act have not accomplished much—the latter because public analysts, not being sure of their knowledge of drugs, generally hesitate to condemn them. Pharmacists themselves have done most for the public by reporting instances of admixture and adulteration, together with means for discovering the same. Such supervision as does exist is, in fact, voluntary. That it had accomplished its purpose so well under such peculiar conditions was astonishing, but it was doubtful whether it would continue to do so. The author then went on to con-

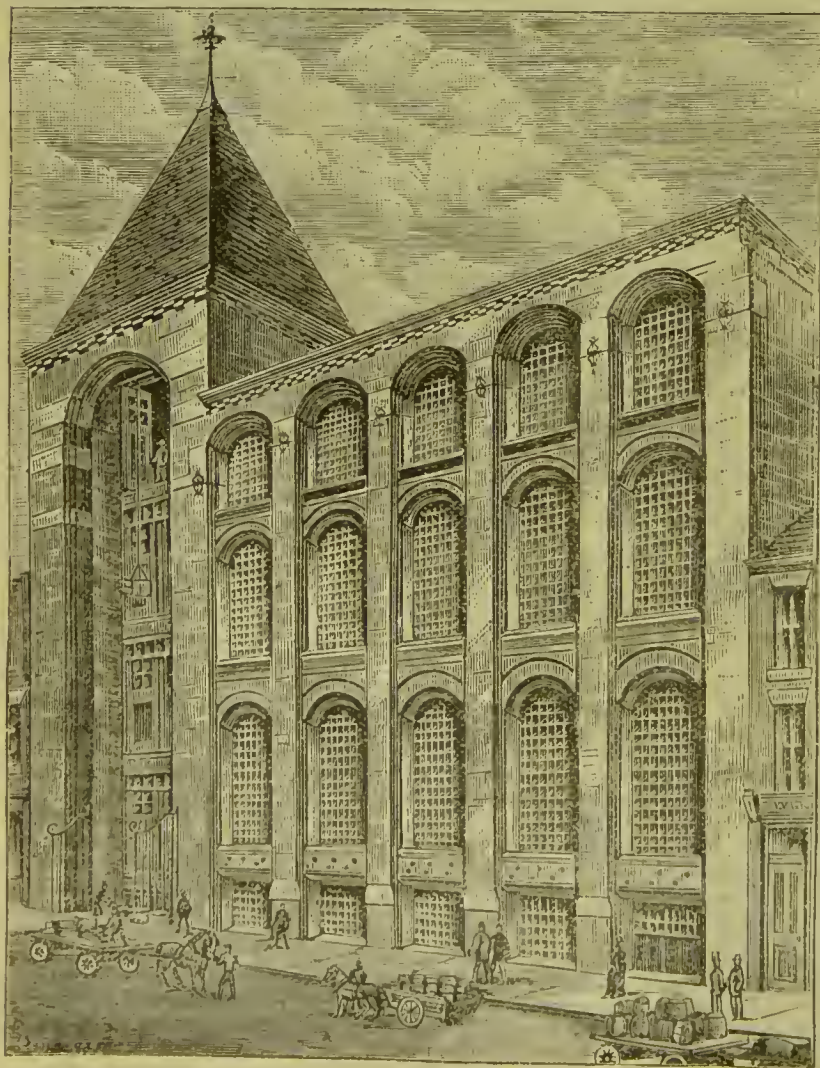


trast the British system with the inspection of pharmacies on the Continent, and also referred to the appointment of experts in America to examine imports of drugs. He thought the Government would some day apply stringent regulations to ensure the purity of drugs in this country; and he suggested that the trade should anticipate such action (1) by developing the scientific character of the pharmaceutical examinations, the addition of microscopy being especially recommended; and (2) the appointment of inspectors armed with authority to bring away for examination samples of all unsatisfactory articles. They would also, no doubt, see that proper provision was made for the safe keeping of poisons, and for the dispensing of prescriptions. A great deal of opposition to such a scheme might be expected, but this would be diminished if the visitation was extended to all persons selling drugs. This would cause stores and unqualified persons generally to look upon drugs as involving too much trouble and annoyance, and they would surrender them into the hands of the legitimate distributor. A laboratory for the examination of such articles as the individual pharmacist found beyond his analytical powers should also be established, and to this pharmacists might send drugs of which they were doubtful; and here also questionable articles collected by the inspectors should be examined. The Sale of Food and Drugs Act, provided for the appointment of an expert to examine teas on importation. He thought it reasonable, therefore, to suggest that what was done in the case of tea, and what was done so successfully in the case of drugs in America, should also be done in the case of drugs in this country. The Royal Commission on Adulteration of Food said in their Report that they considered

the public were more cheated than poisoned; but in the case of drugs the public had more chance of getting poisoned. His final recommendation was that any pharmacist found guilty of wilful negligence in the performance of his duty as dispenser or distributor of drugs should be liable to have his name struck off the register of chemists and druggists. This was a practice which prevailed in other professions. It was time that pharmacists improved themselves. Pharmacy was what they made it. If they waited for the Government to improve their condition, it would most probably be in very undesirable directions. They could not expect protection unless they were willing to submit to restrictions. Emerson said, "Nature hates monopolies." We might enlarge this by saying, "Nature makes no gifts: what we desire we must work for." Let pharmacists try and make their bargain while they have the power to dictate the terms, otherwise they would have to make it when others have the power to dictate.

To the reader of the paper a vote of thanks was accorded, and a discussion followed, which was taken part in by Mr. George Woolley, Mr. Harry Kemp, Mr. W. Lane, the chairman (Mr. Wilkinson), Mr. Smith (Radcliffe), and others.

For this meeting Mr. Spencer Turner sent a specimen of *Scopolia carniolica*, which was inspected with interest by the members. The resignation was announced of Mr. W. Elborne, who has for seven years held the office of joint secretary of the society. On the motion of Mr. George Woolley a vote of thanks was accorded to Mr. Elborne for his services to the society, and the members joined in wishing him all success in his future career.



MESSRS. EVANS, SONS & CO.'S NEW  
TINCTURE HOUSE, LIVERPOOL.

THE accompanying engraving represents the new factory which Messrs. Evans, Sons & Co. have lately built in Wood Street, Liverpool, and which they now use especially for the manufacture of tinctures, concentrated infusions, and such preparations. We understand that the necessity for thus adding to their laboratory accommodation is to a great extent due to the increase in business resulting from the concessions of the Board of Inland Revenue, which enable British druggists to compete with foreign manufacturers in the export of spirituous medicines. This is a notable item of evidence in regard to the value to the country of the removal of all restrictions upon commerce.

The premises are of considerable extent, and the building is well adapted to its purpose, and effective, both externally and internally.

Previously the firm had a very complete tincture department in their chief laboratory. This was an extensive floor, which, we noticed on one occasion that we visited it, was fitted with all the mechanical requirements for the manufacture of these spirituous galenic preparations. In the new tincture house these arrangements have been greatly developed, and the situation of the building, especially in regard to the windows, ensures a fairly equable temperature all the year round.



## THE RAILWAY RATES INQUIRY.

IN the course of the inquiry, on Friday, March 14, the following occurred:—

## MESSRS. GIBSON &amp; SON'S CONSIGNMENT.

Mr. Balfour Browne: My lord, may I mention a question I was going to refer to this morning, with reference to medicated lozenges. My learned friend, Mr. Littler, is here now.

Mr. Littler: Confectionery, if you please.

Mr. Balfour Browne: If you refer to page 1866 of the shorthand notes, your lordship will see what took place. Mr. Marshall Stevens mentioned that someone outside his association had been in the habit of sending medicated lozenges under the term "confectionery," and that one time the rate was raised upon them, and I think it came to a difference of 10s. a ton between Manchester and Edinburgh. At question 18,497, Mr. Littler cross examined Mr. Stevens in this way:—"Just tell me this as you are a person of experience. I have got the original here of the consignment which caused the alteration. If the Lancashire and Yorkshire Company found this parcel—ten parcels of pills, five different sorts, fifty-four 1-lb. bottles of chlorodyne lozenges, and three dozen parcels of seidlitz powders—described as 'confectionery,' do you think they were right in calling them 'druggists' sundries,' and in raising the class?" Mr. Marshall Stevens said "Yes, I think they were." (2) "Here it is, [producing a document]. Now up to that point, and through the whole discussion, I think your lordship understood—I certainly understood—that this referred to the case of Mr. Gibson.

Lord Balfour of Burleigh: I do not think any name was mentioned.

Mr. Balfour Browne: If your lordship will read on. Here it is [producing a document]:—"Quite so, except that I mention that example not so much to show this case on its merits, as to show that the railway companies raise rates without sending any notice to the Board of Trade."

Lord Balfour of Burleigh: The railway companies do not mention Mr. Gibson's name.

Mr. Balfour Browne: Mr. Marshall Stevens had done so earlier in his examination-in-chief. This was in cross-examination.

Lord Balfour of Burleigh: Refer me to the point in the examination-in-chief.

Mr. Balfour Browne: Your lordship will find at question 15,131: "It is occasioned, you say, by the looseness of the classification—"

Lord Balfour of Burleigh: Mr. Marshall Stevens did mention Mr. Gibson's name, and I think it is a fair assumption that the cross-examination as regards this particular parcel referred to Mr. Gibson's consignment.

Mr. Littler: No, my lord.

Lord Balfour of Burleigh: Is not that so?

Mr. Littler: That was not at all suggested, because it was in consequence of a previous parcel, and I intentionally did not wish to mention more names than necessary in this matter; I did not want to introduce personal matters.

Mr. Balfour Browne: Your lordship will have to read a little more before you see it.

Mr. Littler: I never suggested that it was Mr. Gibson who was the first who caused us to make inquiry. I handed the document to my learned friend, and the document spoke for itself, that it was not Mr. Gibson.

Mr. Balfour Browne: The document does speak for itself; but read on, because your lordship will remember that there was a charge of fraud against this gentleman, Mr. Gibson, and that I nailed it down.

Lord Balfour of Burleigh: No, no.

Mr. Balfour Browne: Your lordship said it was a fraud.

Lord Balfour of Burleigh: Let us make it quite clear. As I understood it the charge of fraud was made against an unknown consignor. There was no direct connection between the charge of fraud and any special consignor brought to the knowledge of the Court. I confess, however, that I thought at the time that the cross-examination was as regards the consignment by the person mentioned.

Mr. Balfour Browne: So did I, and your lordship will see that it was in your mind and in mine when you read it.

Mr. Littler: I do not think it should have been in your mind, because I handed the papers to you. I did not hand them to my lord, because it was not necessary; but I handed you at the time every paper we had.

Mr. Balfour Browne: That is true, but they were handed in after the discussion. It is reported: "Messrs. Gibson send consignments of large amounts. They are large manufacturers," and so on. That is all in the answer to question 15,131. Then at question 18,498 Mr. Marshall Stevens says: "Quite so, except that I mention that example, not so much to show this case on its merits, as to show that the railway companies raise rates without sending any notice to the Board of Trade, and they have done so in this case." Then on page 1866, question 18,499: "Of course Mr. Gibson shall come himself and prove it."

Lord Balfour of Burleigh: I remember Mr. Marshall Stevens was in the box; but it is quite clear that at that moment Mr. Marshall Stevens had seen the document.

Mr. Balfour Browne: He had not at that moment; but my learned friend, Mr. Littler, put the question to him, "Would you call ten parcels of seidlitz powders confectionery?" and Mr. Marshall Stevens said, "No." Then he goes on to say, "Mr. Gibson shall come himself and prove it."

Lord Balfour of Burleigh: That is the point. I think it quite an inadvertent mistake, but I do not see how you can blame the company, at least up to this point, for Mr. Marshall Stevens mentioned Mr. Gibson's name at that point. You had better go on from there and work it out. I am rather anxious to follow it out and be quite fair.

Mr. Balfour Browne: This shows that, at any rate, Mr. Marshall Stevens thought the quotation had reference to Mr. Gibson's consignment, because he said, "Mr. Gibson shall come himself and prove it." Then he goes on, "But this point I wanted to make, and the point I still make is that rates have been advanced 10s. a ton from Manchester to Edinburgh." He is then asked, "Is it putting a stop to a false declaration to raise a rate?" I will prove that Mr. Gibson had not made any false declaration at all, and the illustration my learned friend put referred to another man. Then Mr. Littler says, "I have here also the original, which I need not read unless you wish it, of the whole of the custom of these gentlemen, all of which are 'druggists' sundries'—Very likely." Now who did my learned friend refer to when he said, "these gentlemen," when we had been speaking of Mr. Gibson? "I do not know that I need trouble more about that." What was "that"? It was Mr. Gibson's matter. Then Mr. Marshall Stevens says, "Will you allow me to have those papers, because if we can substantiate it I will bring a witness?" Who was that? It was Mr. Gibson that we were going to bring. Then my learned friend says, "Here they are. This is a consignment note, stamped across 'Confectionery,' and this is the whole information with regard to it [producing some documents]. Notwithstanding all that, the rate was advanced 10s. a ton, without notice being given to the Board of Trade." Then your lordship says, "Now I really do not think you should have added that. It is obvious that the rate was not advanced on an article which was correctly described. The whole thing turns upon whether the article was, or was not, correctly described in the first instance; in other words, as incidental to stopping a fraud, the rate was raised." What rate was that? Was it in your lordship's mind that it was Mr. Gibson who had been guilty of the fraud? I do not know whether it was so; but I said, "Your lordship must not assume that." I had Mr. Gibson's interest in mind at the moment. Then your lordship said, "If Mr. Marshall Stevens can say to the contrary." Then I said, "I say that is not proved. Your lordship has no evidence of that." That is of the fraud, and on the part of Mr. Gibson remember. "That is a very serious imputation to make upon a gentleman in Manchester." That is Mr. Gibson. There was no one else but Mr. Gibson. Why did they not contradict it? Why did they not say, "This is not Mr. Gibson at all"? I said, "This is a very serious imputation to make upon a gentleman in Manchester—that this was a fraud—merely upon something which Mr. Littler says." Then your lordship said, "He is to have the documents, and if Mr. Marshall Stevens can correct that, he is entitled to do so. That I understand; and I was stating the contention of the railway company." My lord, what is that? The



contention of the railway company was that it was a fraud of Mr. Gibson's.

Lord Balfour of Burleigh: In whose name was the consignment note, which is mentioned in question 18,350?

Mr. Balfour Browne: Not Mr. Gibson's at all.

Lord Balfour of Burleigh: Does not that show that the railway company were speaking of one consignment note handed in, which I had not seen, and that Mr. Marshall Stevens had introduced Mr. Gibson's name? That is, I think, how the misconception arose.

Mr. Balfour Browne: It was not handed in till afterwards.

Mr. Littler: Question 18,503: "Here they are."

Mr. Balfour Browne: If you will read on you will find "Mr. Littler: It is the contention of the railway company." What is that? That it was a fraud.

Lord Balfour of Burleigh: No, no.

Mr. Balfour Browne: With great respect to your lordship, it is so.

Lord Balfour of Burleigh: Undoubtedly there has been a mistake, and Mr. Gibson has been placed in an unpleasant position. I think it right that an explanation should be made now, and any reparation that can be made should be made to Mr. Gibson; but I wish to point out that I think the mistake arose when a consignment note was handed over to that side of the bar which I had not seen, and which it does not appear that Mr. Stevens had seen, and which I think he had not seen; but Mr. Stevens had mentioned Mr. Gibson's name, and he may, or may not, have continued to think of Mr. Gibson whilst the railway company were cross-examining and speaking and thinking of the other firm, whose name I do not know, and whose name I would rather not know, whose consignment note had been handed to you.

Mr. Balfour Browne: I complain that it was not handed to me at that time. Your lordship will find that it was handed just at the last, and after I had said, "You are accusing Mr. Gibson of a fraud." Why did they not then say, "It is not Mr. Gibson"? The document was handed to me long after your lordship said it was a fraud.

Mr. Courtney Boyle: I do not think that his lordship ever said it was a fraud. He said, "In other words, as incidental to stopping a fraud, the rate was raised."

Mr. Balfour Browne: At any rate, you see what was in my mind at the time. Mr. Littler said, "We allege that we altered this rate because that which was not confectionery was declared to be confectionery, and it was druggists' sundries, and here is the statement." That is the time when I got the consignment note. "This goes abroad to the whole world. It has been in all the papers. Mr. Gibson has suffered materially; and when we come to look at it it is not Mr. Gibson at all. These seidlitz powders, pills, &c., were not Mr. Gibson's, and if I had been on the other side at the time, and I had heard a counsel saying 'you are accusing Mr. Gibson'—because he was the only man whose name I ever heard of with regard to medicated lozenges—'you are accusing him of a fraud,' I think that my learned friend was bound to say, 'It is not Mr. Gibson; the name here is a totally different name.'" It has gone out in the whole of the trade journals that Mr. Gibson was guilty of a fraud, and that your lordship had practically said so; I do not say whether your lordship did or did not. I said then, "Do not take it on Mr. Littler's statement; it is not proved." But it went out as a statement that the Lancashire and Yorkshire Company had shown Mr. Gibson to have been guilty of a fraud in practically sending out druggists' sundries—things that Mr. Marshall Stevens himself admitted were not confectionery—as confectionery, and I ask now that the Lancashire and Yorkshire Company should withdraw that statement with regard to Mr. Gibson.

Mr. Littler: I may say, my lord, that in every instance every consignment from Mr. Gibson was druggists' sundries, and not confectionery. They were handed in in that bundle. Had my learned friend chosen, I should also have been willing to leave it where it was. But if it is said that we are to unreservedly withdraw a statement with regard to Mr. Gibson, which I never made, I am bound to state that, amongst the information given, in every instance Mr. Gibson was dealing with druggists' sundries, but we never did say that it was in consequence of any consignment of Mr. Gibson's, or that Mr. Gibson was the person who was the

cause of it; but we did say that we did find certain persons were sending druggists' sundries as confectionery. I never mentioned Mr. Gibson's name, nor heard Mr. Marshall Stevens on that occasion mention Mr. Gibson's name at all. Immediately afterwards, at question 18,501 I handed the documents to Mr. Stevens, and said, "I have here also the original, which I need not read unless you wish it."

Lord Balfour of Burleigh: That original was not Mr. Gibson's.

Mr. Balfour Browne: We could not say on the spur of the moment whether it was or not; all Mr. Gibson's things were consigned in the names of carriers.

Mr. Littler: In the document the consignor's name was stated. My learned friend had an opportunity of re-examining Mr. Marshall Stevens with all the documents in his hand. We have had no information upon this question; but my learned friend comes here and raises this discussion this afternoon. I said nothing about Mr. Gibson. My learned friend, Mr. Balfour Browne, said, "That is a very serious imputation to make upon"—not Mr. Gibson, but—"upon the gentleman in Manchester." With regard to somebody—I do not call him a gentleman—I do make the imputation, that it was in consequence of what we discovered, which we regarded as being a fraud, that we altered it, and the whole issue was whether or not we had recklessly and carelessly altered it from one class to another.

Lord Balfour of Burleigh: I think it is obviously right that this matter should have been brought to our notice. It is perfectly clear that, so far as we are concerned, there has been nothing proved before us, as regards Mr. Gibson's consignment, detrimental personally to him. It is clear that there is something more to be said about another consignment of some unknown person, as an illustration why the company are entitled to say that they had not arbitrarily raised the rate, except upon what they thought good cause shown, and were prepared to prove, if necessary. That was the reason why they made the alteration. So far as Mr. Gibson is concerned, it is perfectly clear that nothing was brought to our knowledge in any way to prove anything personally to his discredit.

Mr. Balfour Browne: That is all I wish your lordship to say.

#### A PHARMACEUTICAL EXAMINATION IN THE WEST.

SCENE: Chemist's shop in a temperance town out West, where, among other good things, "soda-water" is retailed in pretty considerable quantities. Enter young man, who inquires if there is a vacancy for an assistant.

"Have you the requisite knowledge and experience?" was the proprietor's first question as he drew the applicant aside. "I think I may safely say I have," the young man answered in an undertone.—"Been long in the business?" "Three years."—"Where?" "In Milwaukee."—"Humph! what would you do if a customer gave a nod of the head as he went up to the soda fountain?" "Let him have good old corn-brandy and soda."—"A couple of short nods and a clack of the tongue?" "Fill the glass half full of Jamaica rum."—"Suppose somebody asks for banana syrup with his forefinger and thumb stuck in his left waistcoat pocket?" "He means cognac with ginger."—"Three nods while pointing with his thumb over the left shoulder?" "Old Holland gin, and the same for his friends behind him."—"If somebody says 'Hudson,' and expectorates to the left?" "Old corn with peppermint and wormwood."—"Removes the quid from his mouth with his left hand?" "Hand-made sour mash."—"Very good; that will do. You can start to-morrow. If anything out of the common is wanted, you'll find all these things in our cellar. You see we have to be very careful in making up our prescriptions, as people's lives are at stake."—*Handelszeitung and Tit-Bits.*

VERBASCUM THAPSUS leaves have been examined by Adolph Latin, who did not find in them either glucoside or alkaloid, but 8 per cent. of wax, 1.78 per cent. of resin (of which 1 per cent. was insoluble in ether), and the usual plant constituents, such as tannin, a bitter principle, &c.



## PHOTOGRAPHIC NOTES.

(Written for THE CHEMIST AND DRUGGIST.)

## THE PHOTOGRAPHIC EXHIBITION AT THE CRYSTAL PALACE.

IN point of number of the exhibits this is a failure, there being about one-third only of the number of exhibitors in the apparatus section that there were last year. All the leading London houses, almost, are conspicuous by their absence. The causes, we have heard whispered, are the high charges for space and the paucity of the returns by sale, one firm stating that last year their whole takings were not sufficient to pay the expenses of the assistants for one week, let alone space, &c. This year nothing startling is to be seen in the way of novelties, the most striking being Pearson & Denham's (Leeds) "Circumbra" camera, which has circular bellows, and Scorer's (Havant) patent camera, which combines several new features, such as two fronts with excentric movements, by means of which the lens can be brought opposite any part of the plate, and also a new form of turntable of very good design. Messrs. Mayall, of Bond Street, have on view some samples of a new printing process, the secret of which they retain and call "Tonographs," and there are also shown one or two new hand-cameras.

## A NEW CLEARING AND ANTI-FRILLING BATH.

The following has been recommended as a substitute for the well-known acid and alum bath for the purpose, and we can highly recommend it:—

Sodium sulphite .. ..	140 grains
Tannin .. ..	40 "
Water .. ..	20 oz.
Hydrochloric acid .. ..	60 drops

It should be applied to the plate after development, and a slight rinsing is sufficient before fixing.

## AN ACID FIXING BATH.

Herr Alex. Lainer is responsible for directing attention to the improved action of an acid fixing bath for negatives. The original proposer was H. Berkely, an Englishman, whose suggestion was to use sodium sulphite as a pyro-preserved. The formula suggested by Herr Lainer was:—

Solution of hypo (1-4) .. ..	1 litre
Solution of bisulphite of sodium .. ..	50 c.c.m.

The latter solution is obtained by passing sulphurous acid to excess through solution of carbonate of soda, or soda lye, and should have a density of 36° Beaumé. In substitution for this was suggested:—

Sodium sulphite (1-4) .. ..	50 c.c.m.
-----------------------------	-----------

to which sufficient sulphuric acid was added to cause a distinct and persistent smell of sulphurous acid. These additions to the hypo-bath cause a partial decomposition, and sulphur is deposited; but to obviate this Herr Lainer recommends:—

Sodium sulphite solution (1-4) .. ..	70 c.c.m.
Tartaric acid solution (1-2) .. ..	30 "
Hypo solution (1-4) .. ..	1 litre

An addition of alum to a fixing-bath has been known since 1883, and has been more or less recommended up to the present time; but the same fault, the deposition of sulphur, takes place in this, according to the equation:—



Again Herr Lainer comes to the rescue, and suggests:—

Saturated solution of alum .. ..	1 litre
" " sodium sulphite .. ..	200 to 300 c.c.m.
Mix and add	
Hypo solution (1-4) .. ..	1 to 1½ litres

This remains clear, and may be used at once.

## ALBUMEN PAPER FOR BLUE PRINTS.

A correspondent of the *Scientific American* states that very pretty effects may be produced by printing on ordi-

nary albumen paper sensitised with the following solution:—

Citrate of iron and ammonia .. ..	3½ drachms
Dissolved in water .. ..	2 oz.
Red prussiate of potash .. ..	2½ drachms
Dissolved in water .. ..	2 oz.

Mix equal parts just before using, as the mixed solution will not keep, and float the paper as on the silver-bath, film down, for half a minute or so, and suspend by one corner in a dark room to dry. Detail can be brought out almost equal to silver prints, while the ease of working and the cheapness make it quite desirable. The prints can be mounted and burnished. Sensitise the paper fresh when wanted.

## COPYING BLACK-AND-WHITE.

THERE is evidently some general difficulty or ignorance of the best method of copying black-and-white subjects, such as line drawings, plans, &c. When these are for photo-mechanical work, it is absolutely necessary that the negatives should be reversed and should have the lines represented in the negative as absolutely clear glass; density is not the first essential, as this may easily be obtained afterwards by intensification.

The procedure necessary to reproduce a line drawing, plan, or document, is not difficult. We will take, for instance, a hieroglyphical or illegible prescription, a copy of which it is desired to obtain. In the first place, those who know nothing about photography would probably either trace the characters on tracing-paper or obtain copies by means of a style and the black copying (transfer) paper. But, with all the care possible, it is extremely difficult to accurately map out each delicate stroke of the pen without making the whole either plainer or still more illegible. By photography, however, the copying is done with absolute faithfulness. For such work as this the lens should be a wide angle or short focus, which allows a larger copy with a given length of camera. As large an aperture as possible should be used, and a short, not full, exposure given. The drawing, or prescription, we will say, to be copied, is presumably in black ink on fairly white paper, which, however smooth it may be, will have certain irregularities of surface, which, by improper lighting, will be painfully apparent. These may be got rid of by placing the prescription in a large printing-frame, which is fitted in front with a sheet of plate glass, the prescription laid on this, and the back of the frame placed in position will keep the paper absolutely flat and conceal, to some extent, the grain of the paper. The frame must be supported absolutely parallel to the camera front, and the centre of the prescription be exactly coincident with the axis of the lens; the focus must be carefully taken by a compound magnifier, and if the image is not perfectly sharp all over, the stops should be inserted in order, commencing from the largest till it is critically sharp.

The best plate to use is a slow gelatino-bromide lantern plate, and for photo-mechanical work, where reversed negatives are required, Mawson & Swan's photo-mechanical plates. The exposure varies with the actinic power of the light, but about 60 to 90 seconds, with a medium-size stop and brightly-lit room, will be the average.

The development may be accomplished either by pyro or quinol; ferrous oxalate is absolutely useless. For pyro either ammonia or soda may be used. Our own experience leads us to prefer soda. The following are two formulæ recommended by Mr. W. T. Wilkinson, the author of the only English handbook on photo-mechanical work:—

## PYRO AND AMMONIA.

## Stock Pyro Solution.

Metabisulphite of potash .. ..	1 oz.
Bromide of potassium .. ..	640 grains
Water .. ..	8 oz.

Dissolve, and add

Pyrogallol .. ..	1 oz.
Water, to make .. ..	10 "

## The Developer.

## Sol. A.

Stock pyro solution .. ..	2 oz.
Water .. ..	18 "



## Sol. B.

Liq. ammon. '880	..	..	..	1 oz.
Water	..	..	..	19 "

For a normal exposure use 2 parts of A to 1 part B.

## PYRO AND SODA.

*Stock Pyro Solution.*

Metabisulphite of potash	..	..	2 oz.
Bromide of potassium	..	..	240 grains
Water	..	..	8 oz.
Dissolve, and add			
Pyrogallie acid	..	..	1 oz.
Water, to make	..	..	10 "

*Developer.*

## Sol. A.

Stock pyro solution	..	..	2 oz.
Water	..	..	13 "

## Sol. B.

Saturated solution of common washing-soda.

For a normal exposure use 8 parts of A to 1 part B.

Pyro and soda has given better results in our hands than ammonia, but both are inferior to the following quinol developer:—

## Sol. A.

Quinol	..	..	80 grains
Metabisulphite of potash	..	..	120 "
Bromide of potassium	..	..	5 "
Water	..	..	20 oz.

## Sol. B.

Caustic potash (pure stick)	..	..	200 grs.
Water	..	..	20 oz.

For a normal exposure use equal parts of A and B.

In developing the greatest care must be used that the lines do not clog up or veil, and we strongly recommend a rather bright light in the dark-room. Development should be continued as far and as long as possible, but on the slightest sign of clogging of the lines wash instantly and fix. After the negative is fixed well wash for five minutes, and then apply Edwards's clearing-solution, as given in the *DIARY*, and again set to wash. It is often recommended to first soak the plate in a solution of gallic acid (3 grs. to the oz.) in order to obtain extra density, but we believe this to be a mistake, the gallic acid tending to clog the lines; it is, however, as well to know of this, in case of an inquiry for a powder to obtain density with.

## REVERSING NEGATIVES

In connection with this subject is that of reversing negatives—a subject often talked about but seldom successfully accomplished. We have lately been obliged to strip no less than 162 negatives of diagrams and sketches, and the plan we have successfully adopted may be of interest. The materials necessary are:—Hydrofluoric acid, enamel collodion, methylated spirit, chrome alum, and gelatine solution, and a broad camel's hair brush, with squeegee and dishes, with a few glass plates larger than the negatives to be stripped.

The strength of hydrofluoric acid for stripping work is hydrofluoric acid 1 drachm, water 40 oz.; this must be used in an ebonite or papier-maché dish. The *enamel collodion* is made by dissolving

Pyroxylin, P.B.	..	..	6 grains
Castor oil	..	..	1 drop
Methylated ether	..	..	$\frac{1}{2}$ oz.
.. spirit	..	..	$\frac{1}{2}$ "

The chrome gelatine solution is made as follows:—

Photographic sheet gelatine	..	..	60 grains
Distilled water	..	..	10 oz.
Saturated solution of chrome alum	..	..	3 drops

Soak the gelatine in the water till soft, dissolve by the aid of a water-bath, add the chrome alum, and filter. Clean the glass plates by rubbing them with a clean rag dipped into dilute nitric acid, rinse under the tap, and whilst wet coat

with the gelatine solution, or dip the plate in bodily, and stand up to dry. We usually prepare a lot of these plates at once, as they will keep some time. Carefully clean the negative backs and edges, and place on a levelling stand or levelled slab of glass, and pour as much of the enamel collodion on as it will stand without running off; allow this film to thoroughly set, and then immerse in water till all the greasy lines disappear; then place in the hydrofluoric bath, and rock the dish till the film begins to float up at the edges and corners; take it out and rinse well under the tap, and place the negative film down on a dish of clean water, in which one of the gelatinised plates has been set to soak. By a little gentle manipulation of moving the negative up and down in the water the film will float loose on the top, when the gelatinised plate is brought into contact with it and the film carefully smoothed out with the camel's-hair brush, and a roller squeegee is used to force out the excess of water and bring the collodion film and glass into intimate contact. Then immerse in methylated spirit, and set up to dry. The difficult points are the cleaning of the back and edges of the negatives and obtaining a good thick film of collodion on the negative so that expansion of the film is prevented, and the thorough setting of the collodion before placing in the water, or the film will be opalescent in places. When this latter appearance is seen, immerse the negative in a mixture of spirit and ether, and rub off the collodion, wash, dry, and start afresh.

## A NEW PYRO DEVELOPER.

Dr. Vausaut, of Canada, has suggested a new form of pyro developer, which is stated to be more energetic than anything yet suggested, and, so far as our experiments have been carried, we think this claim can be upheld. The formula is:—

Tartrate of sodium and potassium	..	25 grains
Sodium sulphite	..	25 "
Lithium carbonate	..	1 grain
Pyrogallol	..	2 grains
Distilled water	..	1 oz.

Add the salts to the water in the order given; when the developer loses its energy it may be renewed by adding more lithium or more pyro, or both. Considering the small amount of lithium present, it is difficult to account for the increased energy, and it is doubtful whether lithium is the active agent, as, without the tartrate of sodium and potassium the developer seems to us to be less energetic. The developer, however, is well worth attention, as it retains its activity for some considerable time, and does not discolour readily.

## A NEW FIXING SALT.

Magnesium chloride has lately been recommended as a fixing agent for silver prints, the advantages claimed being a greater immunity from stains, loss of tone, or details. As is well known, saturated solutions of the chlorides and bromides of the alkaline earths were the earliest known means of fixing before Herschel suggested the now much-maligned "hypo." In a search after a possible substitute for hyposulphite of soda we found saturated solution of chloride of lithium even better than magnesium chloride, its price alone being against it.

EXAMINATION CANDIDATES are guilty of some strange misconceptions. Whether this is due to want of intelligence or temporary excitement it is often hard to say. We give them all credit for the latter, but can scarcely venture to do so in the case of the American students who were candidates for registration and gave the following replies to the examiners:— "Opium comes from China and other countries, and grows on trees and shrubs, from which it is gathered." "Senna-cennia—Latin name cennicum." "Most of these questions are clear in my own mind, but I am unable to explain them." "Analysis is the identification of drugs in a mixture, while synthesis is the identification of elements in a mixture."



## MESSRS. HEARON, SQUIRE &amp; FRANCIS.

BISHOPSGATE, 1714. COLEMAN STREET, 1860.

SOUTHWARK STREET, 1890.

OF the London drug firms who rank among the old houses there are few who are as old as the present century, but Messrs. Hearon, Squire & Francis, whose latest migration we have recently had to mention, have a record reaching back at least to the year when the first George came to this country. It is even probable that they go back further than 1714, for sixty years before that date a Widow Kirk resided in the same house in Bishopsgate for which in 1714 Kirk the apothecary and wholesale druggist paid the tithes. There is, however, no documentary proof that the widow was related to the apothecary, and for that reason the firm is content to claim a continuous history from 1714. From that time until the dawn of the nineteenth century the name of Kirk was continuously associated with the firm. Thus in 1800 the trading style was Sharpe, Kirk, Gratton & Hearon; but at that time there does not appear to have been either a Sharpe

nowadays is this one of business and factory accommodation near the heart of London. A central situation is an essential for the rapid transaction of business. It is not easy to get premises which will permit of the manufacture and distribution of all the goods which pertain to medicine, but a stroke of good luck placed at Messrs. Hearon, Squire & Francis's disposal two handsome and spacious buildings at

38 AND 40 SOUTHWARK STREET, S.E.

The locality has already some association with the drug trade, and may in course of time be to it what Holborn Viaduct and Farringdon Street had become to American merchants. The firm began to move into their new premises early in December last, and with the advent of this year matters were sufficiently advanced to justify the closing of the old premises in Coleman Street. When our representative paid a visit to Southwark Street some weeks ago everything seemed to be in perfect working order, and the arrangements for facilitating business were splendid. The two warehouses, 38 and 40, are as one, though, to a stranger, the floors, and rooms, and offices seem to be endless, and it



or a Kirk in it; indeed, the former name was about that time deleted from account headings, and Richard and Henry Hearon were the active partners. Between 1800 and 1840 the house was known consecutively as Hearon, Bright & Thompson, Hearon, Bright & Johnson, and Hearon, Bright & McCulloch. Mr. Bright was the father of the eminent telegraphist, Sir Charles Bright. The next change was the admission of Mr. William Squire, a Yorkshireman, and one of the firm's most successful travellers. Meanwhile the Hearons had died, and by the time the firm removed to Coleman Street in 1860 Mr. Squire was the principal partner in the firm, and became the sole partner in 1866, when he invited Mr. G. B. Francis, sen., to join him. Since that event the firm has been known as Hearon, Squire & Francis.

These reminiscences are provoked by the move across the river to which we have already alluded. The expiry of the lease of their premises in Coleman Street, and the steady growth in their business as manufacturing pharmacists and wholesale druggists had compelled Messrs. Hearon, Squire & Francis to find a new location. One of the most difficult problems which City houses have to face

would confuse readers if we were to attempt to deal *seriatim* with each department which was visited.

## A FEW GENERAL PARTICULARS

will not be out of place at the outset, however. Each building contains five floors and a basement, the latter passing under the street. The floorage is nearly 50,000 square feet. Three "lifts" connect the floors. One of these starts from the town office, and is most used for "calling orders." A second connects all departments, but is not so heavy as the third, which is a legacy from the previous occupant, an iron merchant, and is used for lifting and lowering the heaviest consignments of goods. The roof is utilised for oil-bleaching, and, by the way, from this spot we get a splendid view of the City of London. The yard was open to the heavens when the firm took the premises, but they have put a glass roof upon it, and have filled in the galleries, thereby providing an excellent and well-lighted suite of laboratories. This covered yard is to a large extent used as a goods receiving and despatching department. There is a waggon entrance to it from Southwark Street, and all the five floors



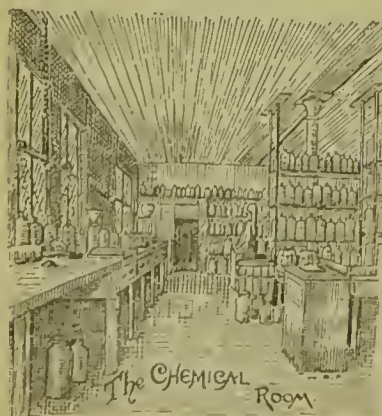
of the buildings look out on to it. The east side of the yard is reserved for the boiler and engine which supply the motive-power required by the machinery. A private house of nine apartments is included in No. 38, and this is being converted into store-rooms and packing-rooms for specialities. The offices are situated on the ground floor. Such is a general sketch of the arrangements, and to go into details we must take the place in sections.

#### STORAGE.

Room for storage is of the first importance to the London wholesale druggist. It might be thought that in this respect they had less demand upon them than the large provincial houses, but, as a matter of fact, both are pretty much on a footing of equality. A very considerable part of Messrs. Hearon, Squire & Francis's warehouses is devoted solely to storage, and there are several excellent features which deserve notice. Beginning at the basement, we note, for example, the vaults under the street. There are a dozen of these, and they are used for the most expensive or most volatile substances. In one we find chloroform, ether, and the like, separated by double doors from all the rest of the buildings. When a warehouseman requires some ether and has to weigh it, he finds, on entering the first door, a pair of scales with weights standing ready; and here he must weigh the liquid when he gets it, returning it to the vault when done with. Mr. G. Bult Francis, who conducted our representative over the premises, had his eye on a small insurance premium when he devised the ether-chamber. It is quite separate from the fabric of the warehouse, and should any explosion happen there is an open space above through which the inflammable vapour would be conveyed into the street. This chamber is locked at dusk, as no naked light is allowed within the outer door. Between the sets of vaults in the two houses is the wine-cellar, an apartment which is absolutely dark, and which varies scarcely a degree in temperature all the year round. The vaults on the west side of it are used for essential oils, opium, and saffron, stored here mainly on account of the coolness of the surroundings. Before leaving the vaults our representative made a remark about the saffron-store, which brought out the fact that the firm import direct from Spain, and carry large quantities. Saffron has to be kept by itself, because of its powerful odour and the ease with which it becomes tainted. In the basement-floor, which is used for storing and putting up goods which are sent out in jars chiefly, we found a suspended shelf tightly packed with jars of English honey. This is collected by Hampshire chemists, customers of the firm, honey from that quarter being preferred. We next pass through the ground-floor of No. 40, which is solely devoted to despatching and receiving goods, and the first-floor, which is entirely devoted to dry goods, and the packing of these for town and country orders. There are few features of an unusual character to be noted about these departments, saving their commodious character and the orderly arrangements. Then we come to the

#### CHEMICAL AND WET ROOM,

of which our artist gives a sketch.



This is on the second-floor. Here there is extensive provision for stock, which is stored on strong shelving and arranged on the floor in bays, so as to provide abundant working accommodation as well as storage. An essential oil and perfume room is at the east end of this department, and in this room there is no gas, any artificial light required coming from the room behind, where poisons are stored, and from whence they are only dealt out by a qualified man. In addition to the room where perfumes are

stored there is another at the back of the building solely devoted to their manufacture. The gentleman who has charge of this department has been in the firm's employment for almost half a century. One of the old leather bottles (dippers, as they were called) in which these essential oils, and also castor oil, were sent from India in the old days is one of the remnants of the past among Messrs. Hearon's curiosities. It is represented in the margin, and is of about 5 gallons capacity. The second-floor of the No. 40 building is a store-room, and the third-floor of the combined building is devoted to the same purpose; and here we find scores of rows of original packages, amongst them cinchona, ipecac, spices, sarsaparilla; roots, such as gentian, aconite, and belladonna; leaves, such as senna and buchu, and all that goes to make up the druggist's stock. There are also special aloes and rhubarb rooms. The top floor is an oil-room, peculiar in having a zinc-lined floor. Here the oils are stored, filtered, and weighed into bottles, which are finished off in the wet-room.



A DIPPER.

#### THE FILTRATION OF CASTOR OIL

is an interesting process. Most firms have their own way of doing it. Messrs. Hearon, Squire & Francis use cylindrical filters placed horizontally. The white-felt filtering-medium is stretched over these, so as to leave a small space between the drum and the felt. Into this space the oil flows from a chamber on the roof, and, as the pressure is great and the surface large, it quickly passes through the felt, and is collected in a suitable receptacle.

#### THE MANUFACTURING DEPARTMENTS

in this establishment are under the charge of Mr. W. A. H. Naylor, F.I.C., F.C.S., one of the honorary secretaries of the British Pharmaceutical Conference, whose name as an original worker is known very widely. Under Mr. Naylor's charge our representative was conducted through the laboratories. The principal ones are situated on the north side of the warehouse, and occupy three sides of the building which forms the covered yard. The west laboratory is a still-room; it communicates with Mr. Naylor's private laboratory, which, by the way, commands a view of the whole. We give a sketch of the still-room, containing apparatus in earthenware and tin-lined copper, the former being used for drawing over sal volatile, and the latter for the distillation of spirits in general, essential oils, and medicated waters. The north side of the laboratory is occupied by several flat evaporating-pans and general apparatus, among which is a marble mortar whose advent is lost in antiquity. Probably it is as old as its metallic brother, which has a ring like a bell, and is also used daily, although its exterior tells that it was made by Joseph Talcott in 1686. The firm is strong in these old relics, but believes in making good use of them. The east side of the gallery is the pan-room, where some very important work is carried on from day to day, the periodic appearance of the picture of the firm's vacuum-pan having, with the quality of the goods they turn out, given them an extensive reputation for extracts. At present almost every inch of the laboratories is profitably occupied, but room has yet to be found for a monster vacuum-pan, to be specially devoted to malt extract. The





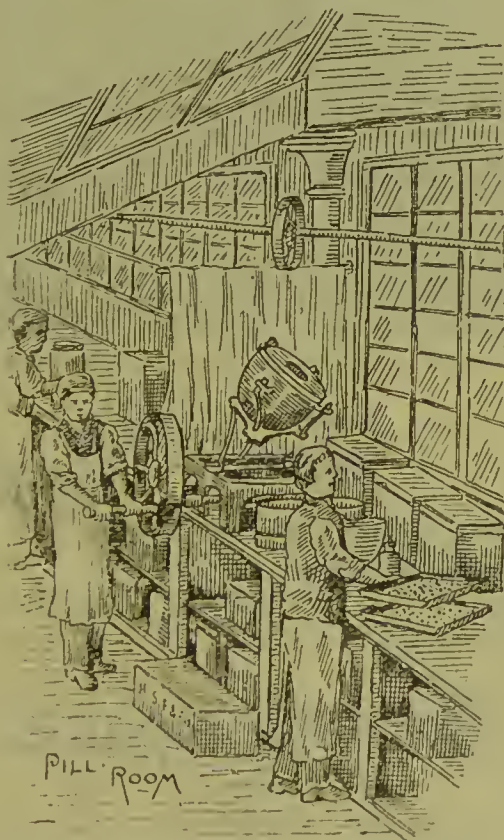
evaporating pans are all provided with mechanical stirrers worked by steam, these providing for rapid evaporation at



the minimum temperature. Below these laboratories we find the most modern addition to the wholesale druggist's requisites,

#### THE PILL ROOMS,

whence come a fair proportion of the five million pills which our competitors lately reckoned to be the daily consumption in the British Isles. It is only within the last few years that Messrs. Hearon, Squire & Francis have gone earnestly into the manufacture of coated pills, and so well did they succeed that for a month or two before leaving their old premises they had to ask their travellers not to take orders. Now that



they have two long rooms entirely devoted to this part of the business, and excellent machinery, they will be able to go ahead. The pill-coater in the sketch was made according to the firm's suggestion by Niblett, who has since improved upon it slightly, and has patented it. It is an excellent coater. Gelatine as well as pearl coating is done.

#### MORE HISTORICAL FACTS.

As we have already stated, we have only attempted in this article to deal generally with the arrangements in these

handsome warehouses; there are many features about them which are common to most drug warehouses, but, on the other hand, there are provisions for storage and safety which reflect much credit upon the active head of the concern, Mr. G. Bult Francis. A metropolitan drug house must carry stock of an extremely varied character, so as to supply the average retailer or the semi-wholesale man who prefers to keep up old connections. For these reasons one finds in such warehouses as this every department of the trade represented, including patent medicines and sundries, which have several rooms to themselves. Everything nowadays tends to specialising, and so far this firm have specialised in galenical and pharmacopœial preparations, a branch of trade which they began to develop strongly when Mr. Francis, sen., joined the firm. While chatting in the private parlour with his elder son, our representative's eye caught the now celebrated engraving of John Bell & Co.'s laboratory in Oxford Street, and Mr. Francis told our man that his father was very much annoyed about the picture at first, for he had charge of the laboratory at that time, and did not approve of the disorder which the artist had arranged for artistic effect. Mr. Francis, sen., was twenty-five years with J. Bell & Co., then seven with Mr. W. V. Wright, at 11 Old Fish Street, before he joined Mr. Squire. Since 1883 he has lived in retirement, but is still hale and hearty. Mr. Squire's connection with the firm terminated in 1882, and since that year Mr. G. Bult Francis and his brother, Mr. W. H. Francis, have had the actual management of the business. The latter has taken an active part in the recent Railway Rates question. Mr. W. J. Rogerson, who has represented the house in town and country for over twenty years, is also interested in the firm. Mr. Stringer, the head cashier, has been with the house since October, 1840, so that he completes his jubilee this year. We have already mentioned some quaint relics of hygone days which were shown to our representative. Two others deserve to be mentioned in closing this article. One is a letter written by Richard Hearon to Mr. J. Smith, chemist, Cirencester, and dated London, July 26, 1800. The letter is an ordinary business one, but we mention it on account of its tone being so much more familiar and friendly than are the usual business letters of nowadays. Mr. Smith's descendants are still in the business, and continue to figure on the firm's books. Another relic is an invoice of goods supplied to Mr. James Bythell, of Shrewsbury, dated 1805. Prices were not so high at that time as one would have expected, especially for "gum myrrhæ," 14 lbs. of which were invoiced at 3s. 6d. per lb., with the remark, "Very scarce, and not any arrived by this fleet." This reference is doubtless to the fact that owing to the French war our merchantmen came from the east in fleets, guarded by the "wooden walls of England."

**TRICHLORALDEHYDEPHENYLDIMETHYLPYRAZOLON**—This is the name of the very last new remedy. Ludwig Reuter, its discoverer, states that it is a condensation product of chloral and antipyrin, and is, in short, antipyrin, a methyl group of which is replaced by chloral. We shall hear more about the thing (we shudder to repeat its name) by-and-by.

**THE MEZQUITE.**—This is the common name of a tree which grows abundantly in Texas, and in the south-western part of North America generally, the botanical name being *Algarobia glandulosa*. Mr. James Clavin describes its properties in an inaugural essay (*Amer. Jour. Phar.*), from which we learn that the leaflets are used in the treatment of sore eyes, and as a poultice for inflamed surface, while a simple infusion of them is employed as a febrifuge. The legumes of the tree are rich in grape sugar and nutritive principles, hence they are much employed as a food for horses and cattle. It is from these legumes that the Mexicans make their beverage, "Atole," which is simply a decoction, differing from the fermented liquor which they also make from the fruit. The wood and bark of the tree appear to possess astringent properties, due to the presence of a tannin, and for that reason are employed in the treatment of bowel complaints. Strange to say the fruit in the urine state induces scour in the cattle who eat it. The tree is also the source of mezquite gum, a substance superior in some respects to the best gum acacia, for it is a better emulsifying agent, and its mucilage is more adhesive, but its brown colour is against it.



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**EDITORIAL NOTES.**

**MATERIA MEDICA NOTES.**

RECENTLY we have had under examination several specimens of druggists' produce in new forms or from fresh sources, and for convenience' sake we group together our notes on a few of them. In certain respects one of the most interesting articles is a sample of insect powder received from our correspondents in Melbourne as the produce of plants grown in Gippsland, the south eastern district of Victoria. This



colony affords its inhabitants some of the best inducements for drug-cultivation: it has a high import tariff, a warm climate, a soil not below the average in fertility, and a steady demand for the raw materials. Several drugs have been successfully cultivated, as the exhibits at the Colonial and Indian Exhibition amply proved, and amongst these we find that the various species of *Pyrethrum* have a leading place. Within the last few years it has been proved that the Australian climate and soil are exceedingly favourable to the propagation of *Pyrethrum cinerariaefolium* and other insect flower species of the genus; they have grown uncommonly well in South Australia, and so well in Gippsland that Mr. Paul Kleesattel, a pharmaceutical chemist, has six acres of his farm devoted to the plant. We understand that the plants are of the true Dalmatian type, the seeds having been obtained from Zara, the capital of Dalmatia. Our report states that the grower is quite satisfied with his results so far, and although the last season's crop was small, he anticipates that year by year the harvest will be an increasing one. There seems to us no reason why it should not be so. Doubtless the plant will take a few years before it is quite acclimatised, and when its hardy nature thoroughly asserts itself the only fear will be the possibility of its becoming a weed. Meanwhile the grower does not profess to supply other than local demand, which is sufficiently large to anticipate his produce for some years to come. Still it is a matter of considerable importance to the Australasian colonies that insect powder can be produced within their own borders, and that they can, if they choose, be independent of Europe for their supplies. The sample which we have received is in powder of a dull yellow colour, and distinctly pleasant odour. It is free from foreign colouring matter, and yields 6 per cent. of ash, a percentage which is characteristic of pure insect-powder. Its killing properties are decidedly above the average, the tests which we put in this direction showing that it acts quickly, and retains this property for several days after it has been exposed to the air.

**Australian Honey.** Honey is another article which could without difficulty be exported from the Australian colonies to a very much larger extent than is the case at present. It has also the advantage of being a product of far greater commercial importance than insect flowers, and one the use of which is yearly on the increase, while the demand for beeswax is equally important. The employment of honey in pharmacy proper is but an insignificant factor in the total consumption, yet it is so large that tons upon tons are purchased at every London drug auction, much of what is bought by druggists being for the manufacture of oxymel of squills. Of the countries outside Europe which supply our markets, California, Chili, and Jamaica are the principal. In the two former of these agriculture is comparatively a very new pursuit—in fact, a South American gentleman told us the other day that he perfectly well remembered the time, about thirty or thirty-five years ago, when the first bees ever known in Chili were brought from Northern Germany to Valparaiso. Since that time agriculture has become a valuable Chilean industry, and the honey, which is nearly all produced by the German colonists settled in Valdivia, one of the southern provinces of the Republic, is much prized for pharmaceutical purposes for its excellent quality and uniform cleanliness. Hamburg and Liverpool are the principal markets for Chilean honey, and the value of the business may be gauged from the statement that the exports from Chili vary from 20,000 to 40,000 cwts. annually. The honey which reaches our markets from Australia and New Zealand is usually of quite as high a standard as the

best Chilean, but the arrivals are of a spasmodic character, and we have lately observed a tendency among the Australian cultivators to send over their honey packed ready for retailing in 1-lb. or 1½-lb. tins, ornamented with fancy labels. At the last drug auction a parcel of 2,400 tins of excellent honey put up in this manner at the Tamahere Apiary, Waikato, New Zealand, was offered for sale, but found no buyer, although another parcel of New Zealand honey in kegs was readily sold. We should think that if the Australian agriculturists are anxious to cater for the large European custom which they might undoubtedly command, they would do well to put up their honey in ½-cwt. tins, two or four in a case, a mode of packing at once economical and suitable for trade requirements.

The introduction of synthetic musk is of so recent date that it is a little surprising that a rival to it should have appeared within the past month. This new claimant for favour differs very materially from synthetic musk. The latter, it will be remembered, is a white crystalline powder, with a powerful odour resembling musk. The new product is a brown, syrupy liquid of an empyreumatic odour, somewhat resembling a mixture of caramel and nitrous acid, and strongly recalling the residues which are obtained in observing the action of nitric acid on essential oils. The liquid has nothing about it which would entitle it to rank as a perfume, far less as musk. It is an empyreumatic body simply; dissolves in spirit, and on dilution with water the solution becomes opalescent, even although dilution is carried to a high degree; but no odour of musk develops, and by the action of alkalies and acids we have failed to effect any improvement in that direction. Meanwhile the introducers of the original artificial musk, if we may call it by that name, are commencing to give signs of reviving animation. After the first stir, created a couple of months ago, the new invention seemed to have passed into a latent condition, and a growing tendency to pooh-pooh the synthetic article became manifest. Now the patentees of the "Musk Baur," as it will in future be known, are again appealing to perfumers to give their product a trial, with the assertion that having now had over a year's experience of their article, they are more than ever convinced of its excellence. The price of "Musk Baur," they say in one breath, is only about one-fourth of that of the best Tonquin grain musk, and the latter is almost double the price of the former—a feat of arithmetic, which is explained by the assertion that "Musk Baur" is really half as costly and twice as odoriferous as Tonquin musk. If, under the test of practical experience, the "Musk Baur" really reveals all the virtues which its introducers claim for it, it is likely to prove even a more serious competitor to ambergris than to natural musk, for it is claimed that the synthetic article, "being of a marvelously astringent nature, renders the use of ambergris in the manufacture of extracts wholly unnecessary," a simplification which the consumers of ambergris, which is now nearly three times the price of gold, would have no reason to deplore.

#### Tonquin Star-anise Oil.

In our issue of January 11 we gave particulars of the distilling of essential oil of star anise in what is now French Tonquin, and we then stated that the sole right to the trade in this Tonquin oil had been granted to a French subject, adding that in all probability the export centre of the article would thereby be shifted, in Asia, from Macao to Hanoi, and, in Europe, from England and Germany to France. This is precisely what is now occurring. M. Bourguin-Meiffre, of Hanoi (Tonquin), the sole contractor for the oil from the



French-Indian Government, has recently made arrangements for the sale of the article in Europe, and a London firm of drug merchants have secured the agency for this country. When the Hanoi firm first brought this oil into trade the venture met with a temporary check, because the packages in which it was then put up were not those to which traders here had been accustomed; but that difficulty has been removed, and the Tonquin star-anise oil, as it will be known in future, to distinguish it from the Chinese oil, is now put upon the market in the handy form of 30-kilo. cases, containing each four  $7\frac{1}{2}$ -kilo. tins. The Tonquin oil is barely 5 per cent. dearer than the Macao oil, and the contractor guarantees its purity. Ample stock of the article is kept in Europe. We have had the opportunity of testing a sample of M. Meiffre's oil. We find that it is almost destitute of colour, and at the present temperature of the air it forms a beautifully crystalline solid mass. The sample is remarkable for the fact that the solidifying point is higher than what is generally given for this oil, viz.  $68^{\circ}$  F., as compared with  $56^{\circ}$  F., the highest point recorded by Mr. J. C. Umuey, as observed in a specimen of direct-import Macao oil. The specific gravity at  $20^{\circ}$  F. is also high, viz. 0.9895, and the ready solubility in spirit is an indication of its freedom from impurity. The quantity of the oil at our disposal has not permitted a more extended examination, but the facts elicited are sufficient proof of the purity of the article. M. Meiffre had an exhibit of his oils in the French colonial section of the Paris Exhibition, and was awarded a gold medal for this oil. He does not intend to limit his business to oil of star anise, but hopes to be able shortly to place upon the market a number of other essential oils, including, we believe, citronella, and drugs which may find an opening in commercial circles.

Those who are directly connected with the drug import centres are an eminently conservative body in their ideas of the manner in which the staple drugs should be imported. Any new style of package is looked upon with suspicion, and should a drug be received in different form from what is usual the suspicion is accentuated. These manifestations are not an unhealthy sign, and we should not object if more of this native caution were extended to every package which comes into the market. We have recently seen some quillaia bark which has been imported in the form of a coarse powder, and applying to, this a little of the suspicion which centre buyers manifest we have subjected it to a careful examination. The same American export house also sent over some liquid extract of quillaia at the same time, and it was probably not unnatural to suppose that the liquid extract represents the substance and the powder the residue of the original quillaia. But we find that there is no ground for this suspicion. The powder is that of the true bark, and has yielded us 8.75 per cent. of dry extractive matter, using a weak spirit as menstruum, and 7 per cent. of saponin, which we consider a very fair result. The extract is a brown, muddy liquid possessed of considerable frothy power, and containing suspended insoluble matter. It yields 3.85 per cent. of extractive matter, and 3.2 per cent. of saponin. Apparently, therefore, it represents about half its weight of dry bark. The ground quillaia and the extract to which we have alluded are both imported from Santiago, in Chile, and the sale for this country has, we believe, been entrusted to a London wholesale drug-house. The extract is packed in tins of about  $4 \times 5 \times 6$  inches in measurement, and it is understood that the manufacturer intends to look for a field for its employment, in the first place, among wool-cleaners, 1 or 2 parts of the extract in 100 parts of hot or cold water giving, it is said, an ex-

cellent solution for this purpose. It is well known that quillaia is largely employed by mineral-water manufacturers for producing a "head" on ginger ale and such-like preparations; and in connection with this we understand that a London firm of essential-oil distillers, who claim patent rights in such a quillaia preparation, have already threatened the importers of the extract with legal proceedings if the latter persist in offering it for sale. Such a development of the question would be watched with considerable interest.

## BANKRUPTCY.

THE Bankruptcy Bill read a second time in the House of Commons on Wednesday, and then referred to the Grand Committee on Trade, is a measure of great importance to the commercial classes, and one which is deserving of their most careful attention. It professedly aims to increase the stringency of the law as it now exists, and this intention is carried out with a good deal of vigour. First, the amount of debt entitling a creditor or creditors to file a petition is reduced from 50*l.* to 20*l.* This proposal meets a very general grievance, and its enactment would perhaps remedy some injustice; but its policy is not undebatable. It obviously adds enormously to the threatening power of creditors, which is saying, in other words, that it develops the task of the State as a debt collector. But the tendency on the part of Chambers of Commerce to demand that the power of the State shall be called in to secure payment of debts is one that Parliament needs to be somewhat jealous about. The law does not regard debt as an offence to be punished. It will give facilities for the enforcement of contracts so far as this is possible, and the only reasons for a bankruptcy law at all are—first, the protection, not the persecution, of debtors; and, secondly, the discouragement of loose habits of commercial morality. The Act of 1883 was largely based on the second principle, and to a great extent it has succeeded. It has been often shown that its administration is attended with great expense, but we doubt whether this is altogether a defect. Creditors make debtors; they are often as much to blame, and it is right that the law of bankruptcy should have some terrors for them.

One of the principal proposals of the Bill is that, where a discharge is temporarily suspended on the ground of culpable negligence, specific acts being stated, the minimum period of suspension shall be five years, and the minimum dividend upon which the discharge shall be granted shall be 10*s.* in the pound. This is subject to some modification, at the discretion of the court, if the bankrupt will agree to devote some of his future earnings towards the payment of his old debts. This, too, is a proposal the effect of which needs to be very closely examined. New misdemeanours, punishable by twelve months' imprisonment, with or without hard labour, would be created by the Bill, as follows:—(1) Hazardous trading or extravagance in living; (2) undue preference to creditors within three months of insolvency, and (3) fraud, or fraudulent breach of trust. The courts are to be empowered to act still more severely than now in cases where the bankrupt has within three years failed to take steps to make himself properly acquainted with his true financial position; has failed to account satisfactorily for any loss of assets, or for any deficiency of assets to meet his liabilities; has brought on his bankruptcy by gambling or by culpable neglect of his business affairs; or has put any creditor to unnecessary expense by bringing a frivolous or vexatious action against him. It also fixes 7*s.* 6*d.* in the pound as the limit of compositions which the courts are to allow.



No doubt the measure is one skilfully planned by men of great experience: it seems to have the support of men in the House of Commons of all parties, its only conspicuously absent sponsors being representatives of debtors. It is evident, however, from the short discussion which took place on Wednesday, that its details will be narrowly scrutinised in committee, and it is to be hoped that only rogues will suffer.

### THE EXAMINATION SCHEDULES.

STUDENTS of politics tell us that there is no hope of private legislation during what remains of the present Parliament. They prophesy further that the next one will be short-lived, or that special imperial functions will engage its attention for the first two sessions. If the prophets are right, there is no hope for pharmacy for four years to come; and if by that time the trade has become fairly unanimous about its "just demands," and agrees not to oppose any measure of reform, we may put it down that the curriculum will not come into force until 1898. It might be an appropriate thing to begin the twentieth century with it, and we submit that proposal to the Pharmaceutical Council with all seriousness. But it is not legislative reform which at present exercises us. There are all these years of inaction to face with no prospect of any improvement of the schedules which at present guide students for the examinations imposed by the Pharmacy Act of 1868. We have on several occasions called attention to the inadequacy of these schedules, and have urged the Pharmaceutical Council to do something to remedy them. We have also hinted as strongly as we felt it necessary to do that the Council has actually undertaken the revision, and only awaited the enforcement of the curriculum to make the new schedules public. Since the advent of the curriculum is now placed at a remote date, it seems to us that the hardship which students have to endure should not be further prolonged. Our case is strengthened by the fact that the Government assessors at the examinations have on more than one occasion referred to the incompleteness of the schedules. This reference is significant, for it simply means that the difference between the subjects as laid down in the present schedules, and the ground over which the examiners take the candidates, is so wide as to make the schedules misleading to the candidates.

The Pharmaceutical Council are as well aware as anybody that some reform is necessary. Two years or more ago the Boards of examiners had their attention drawn to the matter, and they set about the production of entirely new schedules, which they ultimately brought before the Council. But for a year past, so far as we are aware, the Council have allowed those recommendations to lie upon the table. It was contemplated at that time apparently that some extensive modification of the manner of conducting the examinations would be instituted, for we find that although in the Minor no alteration was proposed in the examinations of prescriptions and practical dispensing, yet in all the other subjects the scope of the examination was very materially extended. Thus in pharmacy, while the draft schedules gave much more detailed information regarding all the operations which are followed in galenic pharmacy, it was intended to require the candidate to show a practical knowledge of the processes, as well as to understand the principles of the processes by which the chief official preparations, from collocations to wines, are prepared. It was intended, in short, to institute an examination in practical pharmacy distinct from practical dispensing. There was also a slight extension in materia medica, but this on paper we find to be only a fair statement of the examination which is at present given. In chemistry and physics

candidates would have to face a very much extended schedule. As in the case of pharmacy, a large part of this, it is true, was simply a fuller definition of what is now rather briefly stated, but this fuller definition has brought in several departments of the science which previously had been but little touched—for example, organic chemistry is gone into more fully up to the point of a general knowledge of the methods of estimating the common constituents of organic compounds, and of ascertaining their molecular formulæ, as well as the typical properties of such higher bodies as glucosides and alkaloids. In the practical portion of the examination the candidates were to be taken over a portion, at least, of the present Major examination, and, in addition to testing inorganic salts, the simple examination of certain sugars and alkaloids was proposed, as well as volumetric analysis and the assay of a few important drugs. Moreover, a practical acquaintance with the preparation of certain organic compounds was contemplated. The botany schedule was also fuller, and treated of the fruit, of the physiology of plants, and, to some extent, of their microscopical structure, thus bringing in the long-demanded use of the microscope.

We do not contemplate that this schedule would be received with strenuous opposition by the trade—indeed, the trade have no choice in the matter, except what it can exert through the Pharmaceutical Society, for any alteration in the present schedules only requires the approval of the Pharmaceutical Council. It is true that at the first blush the extended schedules would look formidable; but we do not think that the boards of examiners propose anything which is unreasonable. The only difficulty would be in adequately taking a candidate through the whole in one day. It would mean intense mental strain to him, and probably, in a large number of cases, failure through mere exhaustion rather than want of knowledge. However this may be, we think that the time has come for the Pharmaceutical Council to make some statement about the matter, and we trust that this will be done ere long. It may be added that a revision of the Major schedules has also been made, but we do not think it necessary to refer further to this in the meantime.

### SMOKELESS GUNPOWDER.

IT is the veriest mockery of modern civilisation that Science, the handmaiden of the peaceful arts, is closely linked to the butcher-demon Warfare. A prophet in the early days of science might have foretold that when steam and electricity dominated the world, men would have developed so greatly in the intellectual direction that international disputes would have ceased to be settled by ranging two lots of men opposite each other, and arriving at a common understanding by getting these men to kill one another as fast as possible. But the prophet would have been far from the mark. The refinement of butchery has gone hand in hand with the refinement of customs, killing has become a fine art, and science forms a most important part of the military curriculum. A West-end audience, which we may take to be a generation more enlightened than the audiences which Carlyle used to lecture to, has recently listened, at the Royal Institution, to Sir Frederick Abel discoursing on "Smokeless Explosives." What a gruesome aid to digestion! But the subject is popular at present: it is felt that we are at the beginning of a new era in warfare (the last era, let us hope), when foe will face foe in reality, and not behind a bank of sulphurous smoke. Sanguine people even think that battles will be silent, that the rattle of artillery will cease; but these sanguine people are a little rusty in their physics, and



forget that the main object of gunpowder is to propel a bullet from a confined space by means of a volume of condensed gas, which is certain to create a noise when it comes in contact with the air, even should it carry no smoke with it. Although the idea of smokeless explosives is almost half a century old, it is within the past two or three years that public attention has been arrested by the experiments which were proceeding on the Continent with smokeless gunpowder. The reputed dreadful destructiveness of the French explosive, melinite, had but a temporary notoriety. It was found to be unreliable, but it has been quickly followed by the discovery of another powder which the French Government have kept in rigid secrecy, but of which Sir Frederick Abel has seen a few grains, and the German military authorities have handled more. It is not yet altogether a success, however, and a few advances are still necessary before the smokeless powder is as effective as the black powder which the Chinese discovered centuries ago.

This subject has a special interest to chemists and druggists, because it is to smokeless explosives that they mainly owe the recent advances in the price of camphor. There has been considerable speculation as to the manner in which the camphor is used in smokeless gunpowder, the speculation being due largely to the difficulty of ridding the mind of the idea that the only explosive for rifles is the old black gunpowder. For many years, attempts have been made to improve this gunpowder. The smoke which it produces not only obscures the movement of troops, but it has a disastrous influence upon guns of large bore. This is due to the fact that gunpowder smoke is composed largely of potassium nitrate and sulphate in a state of fusion, as well as oxides of nitrogen and sulphur, all of which are chemical agents which act very energetically upon metals. Carbon is, of course, the element of gunpowder smoke which is least easily dispelled, and the attempts to get more perfect combustion of that ingredient have resulted in the production of the class of explosives called cocoa powders. These contain more saltpetre and sulphur, and less charcoal, than black gunpowder, the charcoal being partially burnt straw. The effect of this alteration in composition is to give products of decomposition not so fully oxidised as of old, therefore less hurtful to guns, and the smoke contains much more water vapour, which has the effect of absorbing the fused potash salts, so that the smoke is dissipated much more rapidly. Seeing that the fused salts have a double defect, it would be of immense advantage if the potassium nitrate could be replaced with a perfectly volatile equivalent, such as ammonium nitrate. The latter salt would answer admirably, but it is extremely deliquescent, and the chief thing done in the use of it has been by Heidemann in the production of a powder which contains a proportion of ammonium nitrate along with potassium nitrate. This powder is the first successful attempt in the production of a comparatively smokeless artillery powder; but Sir Frederick Abel has objections to it, which need not be detailed here.

The most important advances which have been made are entirely outside the gunpowder class of explosives, and may be included in the gun-cotton class. So far as smokelessness is concerned, no material, says Sir Frederick Abel, can surpass gun-cotton pure and simple. But it is a very uncertain thing to handle; it is difficult to make its rate of combustion certain and uniform, and although Sir Frederick Abel himself has, by ingenious devices, almost attained those objects, gun-cotton cartridges have not yet been produced which can be confidently depended upon. Still other forms of nitro-cellulose are giving promising results. There is, for example, Schultze powder, a granulated preparation of nitro-cellulose made from small cubes of wood; but this

powder, and others like it, have the great objection of being more or less hygroscopic. Meanwhile, much attention has been given to picric acid as an explosive, and the study of its properties led to the discovery of melinite, of which it is an ingredient; and there is reason to believe that it is also a component of the Vieille smokeless powder, which the French Government have adopted for the Lebel magazine rifle. But picric-acid powders are deficient in the all-essential quality of stability, and specialists are now giving them up for something of a more simple character. It is here that the camphor comes in. It is well known that xylonite is a combination of nitro-cellulose with camphor. The comparative harmlessness of this body appears to have attracted the attention of experimenters on explosives. The solvent action on nitro-cellulose possessed by various ethers is also possessed by camphor. The French and German Governments have used acetic ether and acetone, Johnson and Borland use camphor, and the result is to convert the explosive into a horn-like material, which can be granulated or made into tablets. A step in advance was made upon this by Mr. Alfred Nobel when he succeeded in producing a smokeless powder, the components of which are nitro-glycerine and a much larger proportion of gun-cotton than is used in the production of blasting gelatine (nitro-cotton with 7 per cent. to 10 per cent. of nitro-glycerine). Camphor is used in this product for promoting the union of the two explosives, as well as reducing the violence or rapidity of the explosion. The resulting material can be treated in any manner, just like xylonite. It is quite satisfactory as an explosive, but it is feared that the volatility of the camphor may render it liable to undergo decomposition in the course of time. This, however, is a defect which, it is expected, will be got over. Military chemists believe they are now on the proper track, and the fact that our own Government is experimenting with these camphorated powders with a view of adopting one of them for the small-bore guns, is an indication that they are not valueless.

As to the effect which the consumption of camphor in explosive-making will have upon the future of the camphor trade very little of a definite character can be said. Ten per cent. is, we understand, the amount which is used in the smokeless powder; but if experience justifies the supposition that the powder will undergo modification by evaporation of the camphor, it is evident that some other agent than camphor must be sought for. We incline to the belief that this will really happen. The camphor is not chemically combined in the powder; therefore the rate of its evaporation will be wholly dependent upon the form in which the powder is used. Even should it be found that camphor answers the purpose, the quantity required will be so large, thereby effecting the price, as to drive investigators into fresh paths. Meanwhile what we have to face is a substantial increase in the price of a valuable medicine, because of the perversion of its use to the extermination, rather than the preservation, of the human species and lower animals.

#### “SQUIRE.”

“THIS volume has been written to supply a want which has been generally felt since the publication of the British Pharmacopœia.” It was with this sentence that the late Mr. Peter Squire commenced the preface to his “Companion to the British Pharmacopœia.” This was in June, 1864, and since that time the Companion, now known by the simple name “Squire,” has seen fifteen editions, the last one having appeared on March 15. From first to last something like 100,000 copies of the work have found their way into the



hands of physicians and pharmacists, and it may fairly be said that it is one of the most popular pharmaceutical books in the English language, and is certainly more consulted than the Pharmacopœia itself. We can recall in this connection the declaration made by the late Sir William Gull, at a meeting of the General Medical Council. The Pharmacopœia was the topic, and he had nothing complimentary to say about it. "I never look at the British Pharmacopœia," he said. "'Squire' is my pharmacopœia." This is a statement which many chemists and druggists could re-echo, and it is the knowledge of this fact, in conjunction with the appearance of a new edition of the work, which has suggested these references to its history.

The late Mr. Squire's first bibliographic venture in pharmacopœia criticism was the comparison of the London, Edinburgh, and Dublin Pharmacopœias, a work suggested by the late Sir James Clark, Bart., M.D., &c. It is difficult for anyone who has entered medicine or pharmacy since 1864 to judge of the extraordinary inconvenience which it was to have three official standards for medicine in the United Kingdom. Mr. Squire's "comparison" contributed to the growing mass of evidence which brought on uniformity, and, when the General Medical Council undertook the preparation of the first British Pharmacopœia, Mr. Squire was one of the three English pharmacists who were selected to assist in the preparation of the work. At the same time three Edinburgh pharmacists were working in the same direction, and also three Dublin pharmacists. This position of Mr. Squire's was undoubtedly the circumstance which induced him to prepare a companion to the Pharmacopœia. He foresaw that it would be a failure, and he set to work adopting the scheme which he had all along advocated, viz., alphabetical arrangement, and, as the change from apothecaries' to avoirdupois weights and measures appeared to him to be a change full of risks, he made the part system a prominent feature in his book. He also included in it many pieces of information which he supposed should have been in the Pharmacopœia, and added useful hints for prescribers and dispensers. The "Companion" made a 220-page book of the present size, and the first edition of 2,000 copies was disposed of in a month. Its success was made secure by the reception it received, especially from prescribers. At first there was an attempt on the part of pharmacists in high places to question the usefulness of such a work, and even to deprecate its employment by dispensers, but we felt, and expressed the opinion, that "Mr. Squire's book supplies a want which every chemist and druggist has experienced." The trade backed up our view by taking its share of the four editions which were published between 1864 and the appearance of the 1867 Pharmacopœia. The fifth edition was enlarged to 338 pages, and was practically a new book. Since then the "Companion" has increased with each new edition, and we notice that the present one contains 640 pages of matter. Strange to say, this extension has been made at an increase of 2s. only upon the original price (8s. 6d.). Mr. Squire took part in the revision of his "Companion" up to 1884, but from the beginning he was assisted by his son, Mr. Peter Wyatt Squire, and in 1877, in the eleventh edition, the names of two sons—Messrs. P. W. and A. H. Squire—first appeared on the title-page. Comparatively little change has been made upon the style of the book during its long career, but occasionally new features have been introduced, such as a therapeutic index in 1873, a list of the Spas of Europe, and several tables, which are of special interest to pharmacists.

It would appear that the authors have always aimed to make their book equally suitable to prescribers and dispensers. The latter, we know, have thoroughly appreciated it, and the

work is so popular amongst medical men that we have heard it said that that is the reason why so few Pharmacopœias are to be found on doctors' library shelves. Mr. Squire was, at the outset, assisted in regard to therapeutics by personal friends in the medical profession, amongst those whom he has named being the late Sir James Clark and Sir Edward Sieveking. His sons have followed this example, but for detail work they have the assistance of a young medical graduate whose duty it is to digest the periodical literature of his profession into concise form for the author's approval. As the result of two years' labour in this direction, we notice that the therapeutic references in the 15th edition are extensive and quite up to recent date, both in character and sequence. On the pharmaceutic side we observe much which space will not allow us to enter into. For this department the authors have in operation a very complete system of bibliographic and practical pharmaceutical and chemical research, whereby all that is new is as far as possible experimentally proved by themselves before it finds a place in the "Companion." In consequence of this we find a very large amount of original matter in the new edition—the authors having simply opened their laboratory books and reproduced what is of importance. For example, under "Aconitina" we find a number of melting-points which cannot fail to be useful. The authors give a pithy essay of less than forty lines on eucalyptus oil and eucalyptol, which alone represents some weeks' work. And this, we find, is the character all through: where they from their experience find that official methods or tests do not come out as would be expected they note the facts. We notice many valuable hits of Pharmacopœial criticism which will doubtless help to modify official standards in the future. As to the general character of the work, we may say that it well maintains its reputation. The references to medical and pharmaceutical periodicals are copious, and the number of non-official formulæ is so large as to give the book a value distinct from what it has as a companion to the British Pharmacopœia.

## CORONERS AND INQUESTS.

CHEMISTS are so often coming in contact or collision with the coroner that a short epitome of the law on the subject of inquest in cases of death may be of interest and perhaps of occasional assistance. The office of coroner appears to be of great antiquity, but has sadly fallen from its pristine greatness. Chaucer says:

"Lord and sire  
Fall often time was knight of the shire,  
A shreewe had been and a coronour."

Coroners are mentioned in an old charter of King Athelstan, and again in Magna Charta, and, until the recent statute, the Coroners Act, 1887, which now practically embodies the law on the subject, the duties of the office were regulated by numerous statutes, some as old as the reign of Edward I. The old statutes appear to assume that every coroner was a knight, but the present Act merely provides that county coroners shall be fit persons, having land in fee in the county sufficient to make them responsible persons. Their appointment is now vested in the county councils, and not without good reason, as the method of election left much to be desired. Whether the office might not very properly have been abolished altogether is a matter perhaps outside the range of this article. It is to be hoped, however, that with the new system of appointment an abler set of men will replace some of the gentlemen now in office. King Alfred evidently had not a very high opinion of coroner's Quest Law, as he put to death a judge who had condemned a criminal



on the coroner's inquisition without giving him an opportunity of pleading.

To return to the Coroners Act, 1837. Section 3 provides that, where an inquest is necessary, the coroner in whose district the body is lying, whether the cause of death arose within his jurisdiction or not, shall issue his warrant for summoning not less than twelve nor more than twenty-three good and lawful men to appear before him at a specified time and place, there to inquire as jurors touching the death. This warrant is directed to the coroner's officer or the constable of the parish where the inquest is to be held. It is the duty of the latter to fill up a printed form of summons to be served on each jurymen. The practice in some cases is merely to summon the jury by word of mouth, and there is nothing in the Act to say that the jurymen shall be served with a summons. Medical men and pharmaceutical chemists, "if actually practising as such," are exempt from service on inquests, as well as other juries, under the Juries Act, 1870. Registered chemists who are not pharmaceutical chemists are of course still liable. Those who are exempt would sometimes save themselves considerable unpleasantness by seeing that their names are not placed on the jury lists, and by notifying to the coroner's officer that they claim exemption. If a jurymen who has been duly summoned, after being called three times, does not appear to such summons, or, appearing, refuses without reasonable excuse to serve as a juror, the coroner may impose on him a fine not exceeding five pounds. The coroner may also commit him for contempt of court *if he attends* and refuses to serve, but there does not appear to be any power to commit him if he keeps away. On imposing a fine the coroner makes out a certificate and sends it to the clerk of the peace, and the fine is then levied in the same way as fines imposed at the quarter sessions, that is, through the sheriff. There is no provision for the remuneration of the jury, although in some places the county councils allow a small fee of from one shilling to three shillings; nor is any particular qualification required. It is usual to summon only householders, but there appears to be no reason why a lodger or even a tramp should not serve. Both might be good and lawful men, and therefore within the statute. Twelve of the jury must agree to the verdict, otherwise the inquisition is bad, hence the reason for summoning more than a dozen. We come next to a point which may sometimes affect chemists, namely, as to what persons have a right to be present or represented at an inquest and to take part in the proceedings. This is a question easier to put than to answer. It appears, from the statute of Marlbridge and other ancient enactments, that it was formerly the duty of every inhabitant of the district over twelve years of age to attend the inquest. At present, according to an eminent writer on the subject, the law is that there is no universal right for all the public to be present, but only for such as "are summoned suspected interested in the result of the inquiry, or are inhabitants of the vill where the body is found." There is no doubt, however, that the coroner has power to conduct his inquiry with closed doors, and to exclude the public or any particular person or persons, if he deems it to be in the public interest he should do so. Representation by solicitor or counsel is a matter, too, within the discretion of the coroner, and it is for him to say to what extent such solicitor or counsel is to be allowed to cross-examine the witnesses or address the jury. It may, nevertheless, be presumed that an inquisition found after the coroner had exercised his discretion too freely in the direction of restraint would stand a very good chance of being quashed. The general practice is to allow the family of the deceased and any person likely to be affected by the ver-

diet to be professionally represented. As illustrating an habitual infraction of the law, without anybody appearing a penny the worse, it may be mentioned that the publication of the proceedings before the coroner's jury is utterly illegal. It is only, therefore, by the indulgence of the coroners that the editor of this journal is not languishing in a dungeon in one of Her Majesty's gaols.

The first duty of the jury is, under section 4, to view the body, and the coroner must do the same, although not necessarily at the same time, and without this preliminary no inquest can be held. Anyone wishing, therefore, to save the coroner and jury trouble can do so by getting rid of the body, although it is a misdemeanour to do so. As a case in point, it was strongly suspected a few years ago that a baker who disappeared very mysteriously had been cremated in his own oven. Sulphuric acid, too, would probably effectively dispose of a body. If, however, evidence could be furnished that the body was actually in the ashes or the acid, notwithstanding the prior decision to the contrary, the requirements of the statute as to view might possibly be complied with. The Act merely says: "The coroner and jury shall at the first sitting of the inquest *view the body*," and this leaves a good deal to the imagination. In olden times there is no doubt that the body was in court, probably on the table round which the jury sat. This was to enable the jury to examine the death wounds, with a view to assist them in coming to a verdict. If the jury cannot agree on a verdict the inquest must be adjourned to the assizes, and then if, after the judge has given them a good wiggling, they are still unable to agree, they are discharged. It may be mentioned, in passing, that every judge of the High Court of Justice is a coroner by virtue of his office.

As juries often take upon themselves to censure someone or other whom they fancy may be directly or indirectly responsible for the death, it may be as well to consider the law on this point. It is hardly necessary to say that the only duty of the jury is to find the cause of death, and the coroner ought not to receive a verdict with a rider, although he has really very little power to refuse it. He can at all events ignore the rider, although, on the contrary, he generally makes it the foundation for a diatribe of his own, often going so far as to summon some poor unfortunate person to listen to his harangue. Such a summons, however, may safely be disregarded, as the coroner has no power to enforce it. It is the individual's own loss if he does not attend to hear what was intended for his moral welfare. With regard to the legal aspect of the case, there is no doubt that anything said by the coroner in his summing-up to the jury is privileged, because that takes place during the proceedings. The harangue on the other hand, which is generally the cause of complaint, is delivered after the verdict has been found, and it would be worth while for some person aggrieved to bring an action against the coroner for slander to test the law on the subject. The argument would be that, the coroner being then *functus officio*, could not plead privilege for his remarks. If the unfortunate individual condemned to be censured is in court, he must not make use of offensive language to the coroner, as by so doing he will probably render himself liable to be committed for contempt of court. His best plan will be to walk out and leave the coroner talking. As a matter of fact, the coroner has no power to drag anyone into court, except a witness or a jurymen.

#### THE DRIFT OF AMERICAN TRADE.

A SHORT time ago we reproduced in our columns the complaint of an old New York drug merchant, who, speaking on



behalf of his class generally, declared that there was no longer any money in the drug-importing business so far as New York firms were concerned, and ruefully compared the present day with the good times thirty or forty years ago, when the Wild West used to spell something sterner than a reminiscence from Buffalo Bill's show. At that time the whole of the drug trade behind the littoral, or at any rate west of the New England States, was in the hands of the New York middlemen, who, in their turn, bought nearly the whole of their goods in Europe. But of late years, and especially during the last decade, the growing western and southern cities have established direct relations with the European trade centres, and the time now appears within measurable distance when they will be able to dispense altogether with the tutelage of New York. The protective system, which has rendered possible the establishment of such huge pharmaceutical manufacturing concerns as St. Louis, Detroit, St. Paul, Chicago, and other American cities now possess, has naturally contributed materially to the decay of the New York distributing trade; while the adoption by the American Legislature of Chicago as the spot for the coming World's Fair, will further assist the disintegrating process. It thus becomes a matter of actual interest to measure the growth of the direct commercial relations of such a typical young American city as Chicago with Europe, and we are therefore glad to see some light cast upon this question in a recent French official publication. Chicago has just passed the one million limit of population. Six years ago it had only 650,000, and its citizens "calculate" that at next year's census they will depose Philadelphia from her rank as the second city of the Republic. The pork-packing industry, too, has ceded the palm to beef, wood, coal, and iron. In 1850, the total business turnover of the city was estimated at \$25,000,000, in 1888 at \$1,379,000,000. European import houses are now adopting the plan of appointing agents in Chicago to buy up, in the country of which it is the centre, corn, fruit, and eggs, for shipment to Europe, before ever the Chicago speculator interferes to manipulate these articles. The Western agricultural districts now order their manufactured goods mainly from Chicago, and it is computed that in spite of the protective tariff, at least two-thirds of the \$388,000,000 worth of such goods purchased annually in Chicago are of foreign origin, including chemicals to the amount of \$37,000,000, tea \$13,300,000, groceries \$9,650,000, and perfumery, &c. \$7,250,000. The bulk of this trade, is still done through New York import houses, but the direction in which Chicago commerce runs is shown by the fact that the value of foreign goods cleared direct at the Chicago custom house, had grown from \$10,700,000 in 1884, to \$13,800,000 in 1888, the increase among some branches of pharmaceutical interest being: drugs from \$52,000 to \$55,600, fine chemicals from \$745 to \$55,600, and india-rubber goods from \$3,270 to \$4,100. It is said that under the influence of its extraordinary prosperity, and the consequent growth of manufacturing industry, the city of Chicago, formerly noted for its fidelity to free trade, is rapidly becoming protectionist. If so the Chicagoans may perhaps profit from an object-lesson which they have recently received, according to the document from which we quote. Formerly natural gas was the general illuminant in the city, and it was greatly esteemed for its economy, cleanliness, and high combustive power. It was brought into Chicago, by means of subterranean pipes, from the neighbouring state of Indiana, under the soil of which it generates. But the Indiana people, jealous of the growing prosperity of Chicago, wanted to do their little best to injure the comfort, if they could not prevent the expansion, of that city, and they have recently passed a law prohibiting the supply of gas across

their frontier into Illinois, of which Chicago is the principal city. According to the returns of its clearing house, Chicago ranks as the fourth city of the Union in financial importance. New York comes first; then Boston, the capitalist centre, which has money invested in almost all American enterprises; and Philadelphia ranks third with difficulty.

### COMMENTARY.

**WHITE MOGADORE GUM.**—The suggestion has recently been made, first in a paper on acacia gums, read a few weeks ago at Edinburgh, and subsequently by Mr. Holmes, at last week's evening meeting of the Pharmaceutical Society, that the fine white Mogadore gum, which is now imported in large quantities from Morocco, is really nothing but the true Kordofan or Turkey gum, which, owing to the closing of the Soudan route to trade, now takes its way north-westward through the Sahara, and reaches us under another name *viâ* Mogadore. The similarity of the gums in appearance, and the still closer resemblance of the mucilage, has led to this supposition. But a wholesale druggist, whose recollection dates back about forty years, informs us that he remembers a time in the 'fifties when this same Mogadore gum used to be imported in thousands of serons and barrels at the time, and the quality then was even finer than it is now. At that time the Kordofan gum came by the usual Nile route, and was remarkably plentiful and cheap, and no reason whatever existed why part of it should take a long and difficult route to Morocco. Moreover, the same informant tells us that recently he has had occasion to offer Mogadore gum to the Continent, for use by the Russian Government, who could not obtain a sufficiency of true gum, but was informed that the Mogadore gum could not be used as such, owing to the presence in it of an acid which does not exist in true Turkey gum.

**REMARKABLE GUESS.**—Among the post-cards sent to us last month in the "Pill-mill" competition, one sent by Mr. F. J. Birkett contained an estimate which, though nearly 1,000 further away from the average than was that to which the prize was awarded, coincided very curiously with the ascertained result. We found the average of all the estimates to be 5,643,961. The nearest approach to this figure arithmetically was that of Mr. Keene, Bournemouth, who sent in the figure 5,643,000. But we have been reminded by Mr. F. J. Birkett, of 75 Aldersgate Street, and we have found his statement to be correct, that the estimate he sent in was 5,643,961—every figure correct with one exception.

**THE LEGITIMATE DEMANDS OF CHEMISTS.**—It appears, from Mr. Coleman's letter in this issue, that the discontented section in the Pharmaceutical Society, or, as they call themselves, the "Progressive Party," expect to put forward seven candidates at the forthcoming election for members of the Council of the Society. This, we admit, looks like business; we may express the hope that the authors of the two excellent letters which we print this week—Mr. Brown, of Dover, and Mr. Coleman, of Cardiff—will be found among those seven. It is evident that they hold decidedly progressive views, that they are not unaware of the difficulties of giving them effect, and that they can carry on their crusade with three very important characteristics—persistence, plain-speaking, and politeness. They are good enough, we observe, to accept with amiability the little dose of wet-blanket which we found it on our conscience to lay last week on their, perhaps, more youthful enthusiasm. Mr. Coleman makes a very effective answer to the argument with which Mr. Carteighe frequently taunts his critics, that



they cannot bring forward champions ready to sacrifice their time for the purpose of working out their views. Mr. Coleman shows that this condition of things is due to the fact that the only people eligible for election to the Council are pharmaceutical chemists and chemists and druggists registered as having been in business before 1868. These are men who may generally be presumed to belong to the upper stratum of pharmacy, or men who are almost past public work. No councillor can be chosen from the great body of examined chemists and druggists. This is a state of things which the present Council have recognised to be unsatisfactory, and which, at any rate, sufficiently accounts for the difficulty stated.

**WHERE THE TRADE GOES.**—Mr. Jacob Emerson, the traffic manager of the Army and Navy Co-operative Society, gave evidence before the Railway Rates Inquiry Commission at its last sitting in London. He stated that in 1888 the traffic of the society amounted to 28,347 tons, and was composed of 1,642,000 different parcels. Of the whole, 13,284 tons went by railway, and 80 per cent., or 10,603 tons, were in consignments under 500 lbs.

**NEW SWISS PHARMACOPŒIA.**—This new Pharmacopœia describes about 800 medicines, and is published in German, French, and Italian. The various articles are arranged alphabetically according to their Latin titles. The *Pharmaceutische Zeitung* states that amongst the features of the Pharmacopœia are particulars as to what is meant by "powder," beginning from the finest grade, and designating coarser kinds by numbers. The specific gravities of tinctures are given; there are three sorts of extracts (fluid, soft, and dry). Solutions are designated by the word "solutum," in preference to "liquor," these preparations occurring in the order of the names of their chief component, as, for example "kalium. acet. sol." Amongst the new departures are to be noted the preparation of a few syrups from fluid extracts, and the standardisation of potent preparations, such as extract of *nux vomica*.

**LONDON DISPENSING CHARGES.**—The London correspondent of the *Pharmaceutical Record* has been telling all about one of the big West-end pharmacies—a double shop, where medicine-chests are a leading line, and the head dispenser has been thirty years acting as such, and in that time has dispensed 15,000 to 20,000 prescriptions. There will be little difficulty in recognising what pharmacy is meant. The dispensing charges at this place are notorious, it is said, and have been often referred to by others in the trade as what should be the remuneration of the qualified chemist; but owing to dispensing by stores, cutting, &c., they stand almost alone as top prices.

	s.	d.		s.	d.
Pills, any number up to 5 ..	0	6	Lotions, 6 and 8 oz. ..	1	6
6 to 12 .. ..	1	0	Lintments, 1 oz. ..	1	0
18 to 24 .. ..	1	6	2 oz. .. ..	1	6
6d. extra per dozen for sil-			3 oz. .. ..	2	0
vering, varnishing, &c.			4 oz. .. ..	2	6
Mixtures, 2, 3, and 4 oz. ..	1	6	6 oz. .. ..	3	6
6 and 8 oz. (3j. dose) ..	2	0	Ointments, $\frac{1}{2}$ 1 oz. ..	1	0
6 and 8 oz. (3ss. dose) ..	2	6	2 oz. .. ..	1	6
10 and 12 oz. (3j. dose) ..	3	0	3 oz. .. ..	2	0
Lotions, 2 oz. .. ..	1	0	4 oz. .. ..	2	6
3 and 4 oz. .. ..	1	3			

**BROMIDE OF ETHYL** is liable, according to Dr. L. Scholzein, to be contaminated with chloroform, which can easily be detected by the isonitrile reaction. Place a few cubic centimetres of the bromide in a test-glass, and add to it as much alcoholic solution of potash, then a drop of aniline. On shaking and warming there should not be observed any other odour than that of aniline and ethyl bromide. If chloroform were present, the disagreeable odour of carbylamine would be given off.



AND

## Literary Notes.

*The Medical Annual and Practitioners' Index.* 1890.  
Bristol: John Wright & Co.

THIS volume, like its predecessors, is a record of the progress in medicine and surgery during the year prior to that which is figured on the title-page. It is compiled by a committee of specialists, whose names are sufficient proof that the work represents the most important advances in the departments in which they are engaged. The present "Annual" is an improvement on preceding volumes in certain respects. It is bulkier, yet there is evidence that the abstracts are more concise than before, especially in the department on New Treatment. Part 1 (Therapeutics) includes "New Remedies," which has been done fairly well by Dr. Sidney Martin, who has succeeded in reproducing, from an American source, a paper by Mr. Percy Smith, which appeared in this journal originally. In the same department we have a very readable article on "Thermotherapeutics," by Dr. Percy Wyld; and one on "Electrotherapeutics," by Dr. A. D. Rockwell, of New York. Sanitary Science, Life Assurance, the books of the year, and other useful matters, help to add to the value of what is unquestionably one of the best Medical Annals published in this country.

*The Trichologists' Pharmacopœia.* By Thomas Gurney, M.D. (sic), L.R.C.P., L.R.C.S., Physician to the Hair Hospital (!), &c. London: Osborne, Garrett & Co., 51 Frith Street, Soho. Pp. 55. 1s.

TRICHOLOGY is, it appears, the science of the treatment of the hair. Dr. Gurney professes to have made a speciality of this subject, and in this treatise he deals with the drugs which he considers useful. We gather from several paragraphs that he has written it principally for hairdressers to read. To druggists the compilation will yield some amusement, but not much instruction. The first article mentioned is "Acaciæ Gummi," which we are told "is not a chemical element." Why this sensational piece of news is given in regard to gum arabic and not in reference to any other substance named is not apparent. Then follow a lot of acids, with full directions for making many of them, but not all. How many hairdressers will wish to prepare their own citric or salicylic acid we cannot tell; but if they do, they will find the formula in this little volume. Under "alumen" it is asserted that "fullers' earth is not, as is supposed, powdered alum"; this discovery is worthy of note. A very funny blunder occurs on page 22, where we read as follows:—"Castorei—Castors.—The dried preputial follicles and their secretion obtained from the beaver (*castor fiber*), the oil sacs being rejected." Preputial is evidently a misreading of, or a misprint for, preputial, but it is worthy of a niche among historical errors. The essay on "Hydrargyrum" is full of curiosities. "This metal," we are told, "like Lord John Russell's speeches, always excites curiosity and angry debate, and is little understood." Why should Lord John Russell be resuscitated for this simile? We have plenty of modern orators capable of exciting angry debate without going back a generation. The author informs us, too, that "the name mercury does not convey, like the names of other drugs, its composition"; and that "the study of mercury has always been one of mixed feelings." Under infusions it is said "hot infusions were, until lately, called decoctions." Dr. Gurney himself would apply the term decoction to "any drug which is made by continual boiling"—a Daniel come to judgment indeed. It can be hardly worth while to continue, or we could easily point out scores of blunders and ambiguous expressions. One conclusion is that trichologists had better limit themselves to the treatment of the hair, and take their materia medica from the standard authorities without adapting it.



## PHARMACEUTICAL TRIP IN THE LEVANT.

## CONSTANTINOPLE.

CONSTANTINOPLE, the largest city of the Levant and the central point of Mohammedan power, is supposed to contain about 700,000 inhabitants, and is known to possess no less than 270 public pharmacies. Until thirty years ago the system of granting concessions for the opening of pharmacies prevailed in the Turkish Empire. At that time there were only about one-tenth of the present number of such establishments, but they quite sufficed to fill the demand for their services. The lower strata of the population then, as they do still, purchased their medicines not from the pharmacist, but in the bazaar of the "attar" spice and drug merchant, or called in the services of some quack doctor or reputed sorcerer. But the pharmaciens of that period were thoroughly trained men, of superior education and standing, and such of them as are still in business rank among the best of the capital. Then the Ottoman Empire was visited by a sudden desire for Western ideas and civilisation, and one fine morning the Constantinople pharmacists heard with dismay that their craft had been suddenly thrown open to free competition. A perfect horde of barbers, shoeblacks (!), and other ignoramuses invaded the profession, and "pharmacies" arose like mushrooms at every other street corner, until the nuisance became too great to be borne. And with the same suddenness with which the craft had been declared free and open a ministerial decree was launched on Nov. 29, 1862, embodying a "Règlement sur l'exercice de la pharmacie civile," which is still the basis of the pharmaceutical law in Constantinople. It provides that only persons shall be allowed to practise pharmacy, own chemists' shops, or sell medicines who hold a diploma as "magister of pharmacy" from the Imperial Ottoman School of Medicine, or from any European university, approved, in the latter case, by the Ottoman School of Medicine. The law, however, has been a dead letter for many years, and even now is only enforced in a very slovenly manner. Three years ago it was extended to the whole of the Turkish dominions, so that now anyone desiring to open a pharmacy in any part of the country must go to the capital for his certificate, which costs about 5*l.*, with 2*l.* added for examination fee.

*The Imperial School of Medicine.*

This college, under the control of which all matters pharmaceutical in Turkey are placed, is a military establishment. Its director holds also the post of chief of the department of public medicine, and is likewise connected with the Supreme Board of Health, in which body the Constantinople pharmacists are represented by three delegates, elected annually from among the craft. A qualified foreign pharmacist, wishing to establish himself in Constantinople, must forward his diploma to the "direction des affaires médicales civiles," with a request to be admitted to the Turkish examination, which, in his case, is a mere formality. His papers are forwarded by the department above mentioned to the Board of Health, who appoint a day for the examination, which may be held in the French language, and can scarcely offer any difficulty to a pharmacist who has qualified abroad. The candidate then receives a licence to practise pharmacy, but before he opens a new shop or purchases an existing business, he has again to ask special permission, which is also required whenever he leaves his business for more than a fortnight, in which latter case he is also compelled to submit for approval the name of the manager to whom he proposes to entrust the business in his absence. For each permit a fee of 5*s.* is charged.

*The Inspection of Pharmacies.*

The pharmacy law also provides that all pharmacies shall be officially "inspected" every six months, at a cost—to the inspected chemist—of about 10*s.* The commission of inspection consists of five members, three delegates of the school of medicine, one municipal employé, and a police officer. The Constantinople pharmacists have for years protested against the injustice of being charged for the inspection of their own shops, but their opposition has thus far been unsuccessful.

*Esprit de Corps.*

Feelings of corporate spirit are at a very low ebb among Constantinople pharmacists. In 1879 a few energetic members of the craft succeeded in forming an association, under the auspices of which a pharmaceutical journal was founded which promised to render valuable aid to the advancement of pharmacy in Turkey. But in the following year dissensions among the members brought about the dissolution of the society and the collapse of the journal, and since that time each Constantinople pharmacist has had to paddle his own canoe. There is no pharmaceutical association in any other part of the Turkish Empire. But the craft in the capital have, at any rate, some sort of representation in the three delegates on the Board of Health. At one time these delegates, when any matters of special pharmaceutical interest were about to come before the body of which they were members, held a kind of informal conference with the leading Constantinople pharmacists, whose opinion governed their attitude on the Board, and gradually these conferences developed into a kind of unofficial standing committee. But quarrels again broke out between this committee and the Board, and the latter successfully invoked the law against "secret organisations and revolutionary agitations" to dissolve the committee. The pharmaceutical delegates took the part of their *confrères*, they resigned in disgust, and for awhile everything was in a state of chaos. Recently new delegates have been neglected, and the defunct committee has been revived in another shape as the "Chambre Pharmaceutique," one of the leading spirits of which is Dr. Pierre Apéry, the editor of the *Revue Médico Pharmaceutique*, and one of the leading pharmacists in Turkey. Another prominent member is Fayk Pasha, proprietor of the Pharmacie Dellasuda, in the Grande Rue de Péra, and professor of organic chemistry and pharmacology at the Imperial School of Medicine.

*The Shops.*

The average Constantinople pharmacy consists simply of the dispensing-room, to which occasionally a second-room is added, which is used as a room for the assistants, or for medical consultations. Store-rooms or laboratories scarcely exist anywhere—in fact, they would be superfluous, as hardly any preparations are ever put up in the shop, everything being purchased ready put up. The inscriptions on the bottles are usually in French or Italian, rarely in Latin, and in some shops all vessels are enclosed in glazed cupboards, on the doors of which the contents are indicated by such inscriptions as "Syrups," "Tinctures," "Alkaloids," "Extracts," "Powders," &c.

*The Sale of Pharmaceutical Articles.*

In some respects the practice of pharmacy is much freer than in most Continental countries. Santonin pastilles and quinine confections are sold by street-vendors, but in other matters the craft is hampered by absurd and ridiculous restrictions. For instance, the importation of nitrate of soda and chlorate of potash into Constantinople is altogether prohibited, and the pharmacists are only allowed to purchase their requirements of these medicines at the Imperial Arsenal in parcels of half an ounce at the time. There is probably no other town on earth where patent medicines are sold to such an enormous extent as in Constantinople. French patents take the lead by a long way, then follow English, Italian, and German. The drug trade is of quite a cosmopolitan character, but one cannot fail to note how during the last few years French firms have been superseded by German houses. Bicarbonate of soda is mostly bought in England, glassware in Belgium and France, glycerine from Antwerp. The low freights from the latter port prevent other glycerine-makers from competing in this article, of which large quantities are used in Constantinople and Asia Minor.

*Illegal Practice of Medicine.*

The practice of medicine by unqualified persons is very common in the Turkish capital, and to counteract it an official list of qualified medical practitioners has been drawn up, and pharmacists are not allowed to dispense the prescriptions of any persons not included in this list. Moreover, doctors are compelled to write their prescriptions on stamped forms issued by the School of Medicine, and bearing the printed name and address of the practitioner.



### The School of Medicine Buildings.

The buildings now provisionally occupied by the Imperial School of Medicine were formally used as barracks. They are situated in the centre of a beautiful park, and are under the direction of the general of division Saib Pasha. The school is exceedingly well appointed and furnished, and has a beautiful anatomical collection, but it bears a striking character of incompleteness throughout. The chemical department is under the direction of the General of Brigade Ahmed Hilmi Pasha, a chemist of repute, and the translator of several standard works on chemistry from French into Turkish. There are about 300 pupils, and the education is entirely free. The majority of the students are also clothed and boarded at the expense of the State, but are compelled after passing their examinations to serve for a time as pharmacists or doctors in the army. The chemical laboratory is the least satisfactory part of the college, and nearly all pharmaceutical students have to depend for the practical part of their studies upon the private pharmacies. Besides this branch of study it does not appear to be anybody's special care or concern.

### The Native Drug Trade in Constantinople.

For centuries Constantinople, owing to its magnificent geographical position, has been one of the principal commercial centres of the world—a link, so to speak, between the Orient and the Occident—the spot to which the produce of the Caucasus, of Syria, of Greece, and of Egypt found its way by water; while the treasures of the Indies and of Persia were carried thither by the ancient caravan route through Asia Minor, which leads through Diarbekir, Kaisarie, and Konia to Bronssa, the city at the foot of Olympus, and within easy reach of the Asiatic frontier of the capital. Nowadays the chief drug market of Constantinople—generally known as the “Misr Teharchusi,” or Egyptian bazaar—is situated in Stamboul, the oldest part of the city, almost exclusively inhabited by native traders. The Egyptian bazaar is a long street, covered with a beautifully-executed roof, through which light is admitted by small cupolas. The spacious shops, or booths, are generally half-way below the level of the street. They are in semi-darkness, but cool and pleasant. The doors are usually decorated with gaudily-painted ostrich eggs, suspended in nets, and occasionally with small stuffed crocodiles and suchlike paraphernalia.

While the European pharmacists are subjected to the provisions of a rigorous poison law, the native druggists in their bazaars sell all manner of poisons without let or hindrance, vessels full of the latter being found side by side with innocuous spices or perfumery materials. The trade in opium and hâsheesh, however, is exclusively in the hands of wholesale dealers, and it may be observed that, whereas in the seventeenth and eighteenth centuries opium-smoking, in spite of strong prohibitive laws, was very common in Constantinople, very little opium is smoked there now, and all the opium dens around the mosque of Suleiman, which were the favourite rendezvous of smokers in bygone generations, are now closed and gone. The same applies to hâsheesh (*Cannabis Indica*), and both drugs are scarcely obtainable in the Turkish capital for purposes of consumption.

A very lively trade is done in the bazaars in drugs for procuring abortion, which are used to quite an alarming extent by Turkish and Armenian women; also in henna, the famous cosmetic, which is used for painting the finger-nails and hands, and is sold in small linen bags. Another very popular cosmetic is a preparation called “Surme,” a Persian name signifying “eye powder.” Surme is a black powder obtained by mixing together powdered galls, sulphate of antimony, and charred incense, and is used to paint the eyelids. Among the host of other popular remedies or perfumes may be mentioned otto of rose in small gilded vials; pastilles of amboa grisea, the pet perfume of the Orientals; musk in beautifully decorated silk bags; the tails of Bisam rats (*Myogale Moschata*, L.), which are placed among clothes and linen as a perfume; rosaries, or “Tesbik,” from white sandal, rose, or aloes wood; mastich from Tchesné and Anatolia, in tears and large round pieces, &c. The root of *Capparis Sndada* is used as a dentifrice, while myrabolanes are in high repute as an effective antidyenteric, and necklaces of jequirity seeds as teething remedies for children.

## Practical Notes and Formula.

### STOMACHIC POWDER.

Bello's charcoal .. ..	30 grains
Bicarbonate of soda .. ..	20 ..
Rhubarb .. ..	100 ..
Powdered quassia .. ..	2 ..

Mix, and divide into twenty doses, one of which should be taken a quarter of an hour before each of the principal meals.

### CONCENTRATED ANTISEPTIC SOLUTION.

Borax .. ..	25 parts
Salicylic acid .. ..	5 ..
Boric acid .. ..	10 ..
Glycerine .. ..	30 ..
Water .. ..	40 ..

Place the whole in a porcelain dish, and heat until a clear solution is formed.

This solution is suitable for diluting with ten to twenty times its volume of water, as a preservative for meat. A teaspoonful of it is sufficient to add to a gallon of milk.

### PRESERVATIVE POWDERS.

THE German Imperial Health Department has recently ordered the examination of various powders offered to the public for the preservation of meat. The following formulae are based upon the analytical results:—

(1) Chloride of sodium .. ..	43 parts
Nitrate of potassium .. ..	31 ..
Boric acid .. ..	20 ..
(2) Chloride of sodium .. ..	25 ..
Boric acid .. ..	20 ..
Dried sulphate of sodium .. ..	40 ..
Sulphate of soda .. ..	15 ..
(3) Chloride of sodium .. ..	6 ..
Borax .. ..	91 ..

### HOREHOUND SYRUP FOR]HERE BEER.

FOUR oz. dried horehound, 8 lbs. best sugar, 2 oz. caramel or burnt sugar, 1 gallon water. Pour the water boiling hot upon the horehound. Let stand, covered up, till cold, and then strain and pass through a filter-bag, and add the sugar to the clear liquor. Let it remain under cover, stirring occasionally, till the sugar is all dissolved, and then bottle and cork.

### MIXED BIRD SEED.

	Parts
Hemp .. ..	5
Canary .. ..	4
Millet .. ..	1
Maw .. ..	1

—New Idea.

### COUGH PILLS.

THE following is the formula for the pills used by the German army:—

	Grains
Morphine hydrochlorate .. ..	4
Powdered Ipecacuanha .. ..	3
Golden sulphide of antimony .. ..	5
Powdered sugar .. ..	24
„ althea root .. ..	24

Make a mass, and divide into twenty-five pills. To be rolled in liquorice powder.

### EOSIN INK

is often spoken of as a good red ink, but, according to a correspondent of the *Pharmaceutische Zeitung*, ordinary eosin does not give such good results as erythrosin, having a blue or yellow shade. A 1-per-cent. solution of this is strong enough.



## Medical Gleanings.

### PREVENTION OF WHITLOW SUPPURATION.

DR. MENDEL recommends, when the first sign of the whitlow appears, to put a thick layer of mercurial ointment on the finger, covering it with antiseptic gauze and oil silk. The pain disappears after a short time, and suppuration is never produced.

### ASTHMA.

DR. PEARSE treats asthma very successfully with nitrite of sodum. He gives it in 3 to 5 grain doses along with 2 drachms of tincture or juice of hyoseyamnus. When frequently repeated the dose of the henbane preparation may be reduced to 1 drachm, but not less, small doses giving little benefit.

### TREATMENT OF GONORRHOEA.

THROUGHOUT the whole of Europe and in America considerable attention is being given at present to the ointment treatment of gonorrhoea. It is said that the ordinary remedies are much more effectual when used in this way. The common plan is to dispense the ointments in metallic tubes, fitted with a urethral pipe.

### DRY ECZEMA AND PRURIGO.

DR. ANGANEUR, a French dermatologist, reports excellent results in the treatment of the above mentioned disorders with carbolic acid, given internally in 2 to 4-grain doses. He prefers to give it in the form of a syrup, such, for instance, as one made of glycerine of carbolic acid, B.P.,  $\mathfrak{z}\text{ss}$ . to  $\mathfrak{z}\text{j}$ .; syrup of orange to  $\mathfrak{z}\text{viij}$ . Dose: A tablespoonful morning and evening. The remedy has no influence upon psoriasis.

### TO CURE WARTS.

UNNA's method is recommended, namely, Take mercurial ointment, containing 5 to 10 per cent. of arsenious acid, spread on linen, and apply over the wart, which gradually softens, and is finally absorbed without leaving any mark. The method is painless. It is also good especially in the case of children to give a tonic mixture, the active ingredient of which is arsenious acid. For example, a child of seven should get a mixture containing 2 drops of Fowler's solution in each dose.

### SORE NIPPLES.

THE Paris correspondent of the *Medical Press* gives the following as a good application for fissures of the nipples:—

Salol	..	..	..	..	1 drachm
Ether	..	..	..	..	1 "
Cocaine	..	..	..	..	4 grains
Collodion	..	..	..	..	5 drachms

Pure cocaine should be used, not the hydrochlorate, and in compounding the application advantage should be taken of the solvent properties of the ether.

### HYDROGEN PEROXIDE IN DIPHTHERIA.

At a recent meeting of the Medico-Chirurgical Society of Montreal, Dr. George W. Major read some notes on the treatment of diphtheria with hydrogen peroxide solution. The treatment originated, Dr. Major says, with a St. Louis physician, who reports that the "10-volume" solution diluted with two to three times its bulk of water, is of great value when used as a spray in clearing away and effectually disorganising the decomposing exudate of diphtheria. Dr. Major has had two years' experience of the peroxide in this connection, and from his notes as published in the *Montreal Medical Journal* we learn that when applied locally it causes neither irritation nor pain. It is a powerful antiseptic and deodoriser. It does not preclude the simultaneous use of any other local remedy. It is a perfect solvent for the exudate of diphtheria. When used locally the membrane seems to corrode and comes away in fragments of a more or less porous character. In nasal cases it keeps the nose free from membrane and gives bichloride of mercury or other solution a chance to act. In the larynx it occasions a little alarm by the escape of gas as it comes into contact with the membrane, but it does not in any way interfere with respiration.

### NEW CURE FOR DIARRHOEA.

DR. L. WORSHAM, of Evansville, Ind., gives particulars of seven cases of bowel complaint, in individuals of both sexes and of different ages (children and adults), which he treated with arsenite of copper. Some of the cases were very bad, but they all got better in the course of a day or two under the new treatment, and after other remedies had failed. The mixture is made by dissolving a  $\frac{1}{100}$  gr. tablet of arsenite of copper in 6 oz. of water, and a teaspoonful is taken every ten minutes for the first hour, and every hour thereafter.

### ANGINA PECTORIS.

DR. T. F. PEARSE, of Southsea, informs the *Lancet* that where attacks of angina pectoris occur very frequently, but are of a comparatively mild nature, he has had far better results with sodium nitrite than with nitrite of amyl. It is more reliable and more lasting in its effects. He says that 5-grain doses may be given every five or six hours without hesitation; but we may point out that some samples of sodium nitrite are impure, and our posology of the remedy has been founded on the impure salt. Nitrite of amyl and nitroglycerine are more rapid in their action than sodium nitrite, and are to be preferred when the symptoms are alarming.

### IODINE FOR VOMITING.

IODINE is an old remedy for vomiting, but it is seldom used. It is specially useful in the vomiting of pregnancy, and Dr. F. Taylor states that he has used it in Guy's Hospital since 1883, with success, in the vomiting of Bright's disease, in cerebral vomiting, in vomiting after chloroform, in the vomiting of migraine, in vomiting from gastric disease, and in other instances. Although it does not always succeed, very frequently 3 to 5 minim doses in a few drachms of water every half-hour or every hour for six or eight hours do bring relief. We may add that it is a favourite homoeopathic remedy for the same trouble.

### SPERMINE MURIATE.

THE use of this alkaloidal salt, derived from the spermatoid fluid, is the subject of a paper by Dr. G. A. Stockwell, which was concluded in the January number of the *Therapeutic Gazette*. The investigations which have been made undoubtedly show that subcutaneous injections of the salt do have a remarkable influence in restoring health and vigour to those who have suffered from long illnesses, or who from other causes are "below par." One remarkable consequence of the injections is the effect upon those who are addicted to alcoholic stimulants. In the course of a few days they lose entirely the craving for drink, possibly because of the bracing influence of the spermine.

### HOW TO GO TO SLEEP.

THE *Lancet* in discoursing editorially on sleep and wakefulness says that most authorities, wisely, no doubt, recommend that the bad sleeper should break off his daily routine some time before the hour for retiring to rest, that he should try the distracting influence of conversation, a stroll, a novel, or a cigar, and that every effort should be made to prevent the overtaxed brain from pursuing during the night the well-beaten track of the day. A tepid bath at bedtime often acts well, whereas a very hot or cold bath is to many people injurious. The bedclothes should combine comfortable warmth with lightness and ventilation, and the head should be placed somewhat high, and to the north, some people say, but this our contemporary does not see the validity of.

### ATROPINE OINTMENTS.

DR. MARCUS GUNN calls attention in the *Brit. Med. Journ.* to cases of atropine delirium arising from the use of atropine drops. These alarming results can be prevented, according to Dr. Gunn, by using the atropine in the form of ointment whenever it has to be applied repeatedly to the eye. The atropine (not the sulphate) is soluble in warm vaseline, so that an ointment of any ordinary strength (say 4 grains to the ounce) can be readily prepared. A small piece of such an ointment introduced inside the lower lid on the tip of a camel-hair pencil will act on the eye quite as powerfully as an aqueous solution of the same strength. For the past two or three years Dr. Gunn has always ordered atropine in this form, and has not met with a single instance of atropine poisoning following.



## EXALGINE IN INFLUENZA.

PROFESSOR T. R. FRASER thinks that exalgine would be serviceable in influenza, especially in the numerous cases in which pain is a prominent symptom. Probably the administration of 2 grains every two or three hours, or of 4 grains every six hours, would be sufficient to test its value.

## PILLS FOR MENORRHAGIA.

Powdered ergot .. .. .	75 grains.
Subcarbonate of iron .. ..	75 "
Sulphate of quinine .. ..	15 "
Extract of digitalis .. ..	7 "

Mix, and make into fifty pills, of which two may be taken three times daily.—*L'Union Medicale*.

## EUCALYPTUS OIL IN BRONCHIAL ASTHMA.

DR. ALFRED DALZELL, of Malvern, gives particulars in the *Homœopathic World* of cases of bronchial asthma, which he treated most successfully with 5-minim doses of eucalyptus oil given at bedtime. Homœopathic remedies were given at the same time, but it was the eucalyptus oil in five drops at night which "banished the asthma, purified the secretions, and allowed refreshing sleep."

## SODIUM CRESOTINATE AS AN ANTIPYRETIC.

WHILE artificial salicylic acid is being condemned on account of the impurity (cresotinic acid) which it contains, it is interesting to note that Professor Dounne has demonstrated that paracresotinate of soda is tolerated by adults to the extent of 6 or 8 grains daily. Administered to children it acted as an active antipyretic in large doses, 1 grain having been given to a child twelve years old within three hours. Ortho cresotinic acid is inactive, and meta-cresotinic acid dangerous. Which of the three is it that exists in impure salicylic acid?

## A "MUMPS" BACILLUS.

WE have already recorded the discovery of a ptomaine in the urine of a patient suffering from mumps (*vide antea*, page 300). This necessarily means that the disease must be originated by a bacillus. Such an organism has been discovered, both in the blood and in the saliva of "mumps" patients. It is called *Bacillus parotidis*, and is not very tenacious of life, for horic acid, as well as corrosive sublimate, in the proportion of 1 in 500,000, checks its development, and it dies at a temperature of 60° C., the spores at 90° C. It is supposed that it is the deposition of the spores in the parotid duct which gives rise to "mumps."

## TREATMENT OF GALL STONES.

IN Italy, where olive oil is an article of daily consumption, gall-stone disorders are much less frequent than in any other country. This circumstance has given rise to an attempt to cure such disorders by the administration of large quantities of olive oil—from 6 to 36 oz. per day—and so far the reports show that patients who have not been improved by other methods of treatment have obtained great relief from the olive oil. Colic disappeared for eighteen months in one case, and other symptoms, such as the enlarged liver, sensibly abated. A new kind of heroic treatment of gall stones is recommended by Dr. Buckler, an Austrian physician. It is to give a teaspoonful of succinate of iron along with 5 to 10 drops of chloroform three times a day, after each meal. The treatment should be continued for several months, as it is intended to completely dissolve the gall stones. Succinate of iron is an amorphous reddish-brown powder, insoluble in water and alcohol.

## CORROSIVE SUBLIMATE

receives more and more knocks on account of the toxic symptoms which it occasionally gives rise to when used in surgery. The last one to refer to the matter is Dr. A. Pearson Luff, who, in referring to the dangers of flushing the peritoneum with corrosive sublimate, states (*Brit. Med. Journ.*) that one of the chief causes of this danger arises from the fact that, after it has passed into the circulation, the mer-

cury salt becomes converted into insoluble, or partially insoluble, compounds, both by the albumen and by the carbonate of soda of the blood (an albuminate of mercury and a carbonate of mercury being respectively formed), and that in consequence it becomes deposited in the various tissues, and so by not being speedily eliminated from the system produces toxic effects. This result does not ensue when the double iodide of mercury and potassium is used, because it is not acted upon either by albumen or carbonate of soda, and for that reason he advocates the use of the double iodide. This salt, he explains, is the "iodic hydrarg." of Messrs. Burroughs, Wellcome & Co.

## HOMELY CURES.

IN the discussion at the Edinburgh Medico-surgical Society on Dr. George Leslie's paper on the cure of neuralgia with common salt there were a few useful suggestions. Dr. Brakenridge remarked that, after a suggestion made to him by Dr. P. McBride, he had frequently, during the last few years, used a very strong snuff containing a little pepper, with distinct effect, for the relief of facial neuralgia. By this means the pain had been, in many cases, promptly relieved. Dr. Watson Campbell said a friend who heard him cough on one occasion suggested snuff, in the hope that "a diel wad ding oot another"—that sneezing would stop coughing. This was at once tried, and the result was simply marvellous. The tiniest pinch was sufficient to arrest the spasm at the beginning, and the patient, being provided with a small box of snuff, was able to attend to himself. In a comparatively short time it was observed that the intervals lengthened, and, within three weeks from the first pinch, the cough entirely left him. Another friend, in all cases of facial neuralgia, used vinegar instead of salt. He filled a teaspoon and brought it close under the nostril of the affected side, and, compressing the other, told the patient to draw it up by a sudden nasal inspiration. He had seen a good number of severe cases relieved, if not cured, instantaneously in this way.

## TINEA SYCOSIS—"BARBER'S ITCH."

DR. JOHN KNOTT, having recently had specially favourable opportunities for studying this well-known cutaneous disorder, communicates some notes to the *Lancet*. He is inclined to think that the inoculation under the hands of the barber is more likely by far to be due to the lathering-brush than to the razor, as the latter medium is always pretty thoroughly subjected to the best of disinfecting agencies—heat and cleanliness—in the interval between each pair of consecutive operations. The disease, in the case under observation, began in the chin, by the formation of nodules of congestion, with, as it progressed, a considerable amount of induration around the roots of the affected hair-follicles. The surface of these indurated spots became scaly, and the desquamative process proceeded excentrically therefrom. Causing very little uneasiness at first, the tension increased with the advance of the disease. The fungus spread to the cheeks, and all over the bearded part of the face, and its growth was apparently little, if at all, checked by various antiseptic washes that were used. One peculiarity was that whenever the patient took alcoholic liquor, in however small quantity, it seemed to fly straight to the chin, and gave rise to an unbearable feeling on tension and burning. Nothing in the nature of drugs would cure it, and the patient was compelled, in spite of excruciating pain, to pull the hairs out one by one. This effected a cure. Brooke is of opinion that much of this complaint is propagated amongst workmen who frequent lower-class barbers' shops in which too little regard is paid to cleanliness. For allaying the inflammation and eczema which accompany the disease he finds the following ointment generally effectual:—

Hydrargyri oleatis, 2½ per cent. .. ..	3j.
Ammonia sulpho-iodthyolici .. ..	℥ xx.
Acidi salicylici .. ..	gr. x.
Olei lavand. .. ..	℥ ij.

M.

This should be kept applied on strips of lint or linen. It is by no means always absolutely necessary to shave, but the stubbly condition of the hair produced by infrequent shaving seems the most irritating to the follicles, and most provocative of relapses.

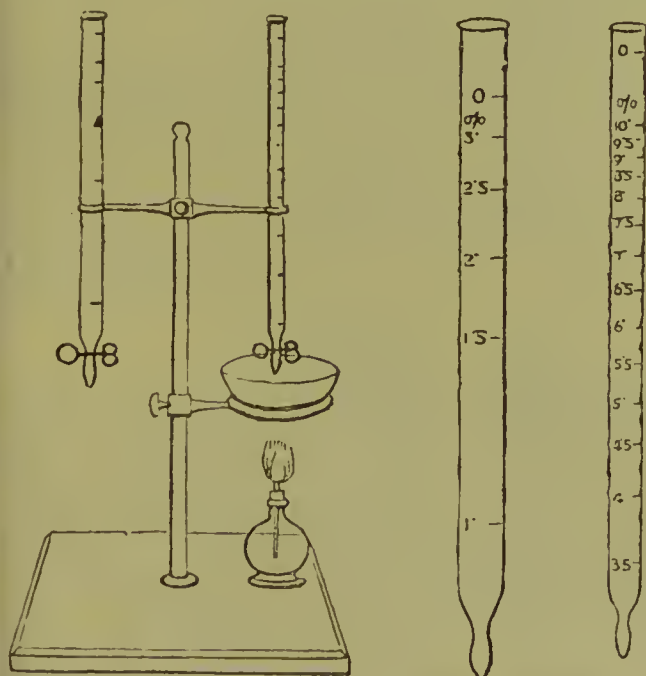


## A GRADUATED GLYCOSOMETER.

MR. A. W. GERRARD communicates to the *Lancet* a note on an improved form of burette for estimating the amount of sugar in urine, which is based upon a reversal of the usual method, the urine in this case being placed in the burette and the Fehling's solution in the boiling-dish. As 10 c.c. of Fehling's solution is equal to 0.5 gramme of glucose it follows that the following are equivalent figures:—

Amount of sugar in urine		Volume of urine (1 in 20) required to reduce 10 cub. cent. of Fehling's solution	
Per cent.		Cub. cent.	
10.0	.. .. .	10.0	
9.5	.. .. .	10.52	
9.0	.. .. .	11.1	
8.5	.. .. .	11.76	
8.0	.. .. .	12.5	
7.5	.. .. .	13.33	
7.0	.. .. .	14.28	
6.5	.. .. .	15.38	
6.0	.. .. .	16.63	
5.5	.. .. .	18.18	
5.0	.. .. .	20.0	
4.5	.. .. .	22.22	
4.0	.. .. .	25.0	
3.5	.. .. .	28.57	
3.0	.. .. .	33.33	
2.5	.. .. .	40.0	
2.0	.. .. .	50.0	
1.5	.. .. .	66.63	
1.0	.. .. .	100.0	

The burettes are graduated in percentages, and there is a pair of them clasped by a pair of swinging arms, supported by a shoulder fixed to an upright brass stand; the swinging arrangement allows the burettes to be moved at will, so as to be brought over the dish containing the Fehling's solution. The graduations are shown more plainly in the enlarged figures. To graduate the instrument it is filled with



water and marked with a 0 line, then the volumes of water represented by the right-hand column of figures in the table are withdrawn in the order of their sequence, the levels after each withdrawal being marked with their proper percentage, as shown to the left. As the range of percentage from 1 to 10 would necessitate a very large burette, two are employed, one thin and narrow for high percentages, the other of larger capacity for low percentages. One result of having two burettes is that both must be filled with urine to the zero

lines, and if the percentage of sugar be not obtained from the first burette then the second will give it.

The following instructions give concisely the method of using the instrument:—Take any urine known to contain sugar, dilute 1 volume to 20 volumes with water, mix well, fill both burettes to the zero line with the urine. Place 10 c.c. of Fehling's solution with about 50 c.c. of water in a porcelain dish, and boil; whilst boiling deliver the urine on to the Fehling slowly, first from the small burette, and, if necessary, continue from the large burette, until the blue colour has gone. The level of the urine in the burette points out the percentage of sugar present. Should any urine be found to contain more than 10 per cent. of sugar let 1 volume be diluted to 40 with water, proceed exactly as above, and to get the real percentage multiply the observed percentage by 2.

[There is, of course, no reason why ordinary burettes should not be used by those who do not object to make the calculation.—ED. C. & D.]

## MANUFACTURE OF "COMPRESSED YEAST."

IN a thesis presented to the school of pharmacy of the University of Wisconsin Mr. Alfred J. M. Lasché describes how compressed yeast is made in various parts of the United States. The thesis is printed in the *Pharmaceutische Rundschau* of New York. In regard to the preparation of the mash it is stated that 3,130 lbs. of ground corn are mixed with 4,500 gallons of water. This mixture is heated to 190° F. (to swell the starch, and thereby facilitate its inversion), and subsequently cooled to 154° F., then 1,920 lbs. of ground rye and 550 lbs. of ground malt are added, the malt being specially employed for the amount of diastase it contains, and is indispensable in the converting process. This mixture is then allowed to stand one hour, and is finally cooled to 80° F. The proportions of the different grains are of course largely a matter of opinion, and the various yeast manufacturers have different working formulas.

When the mash has cooled to 80° F. it is drawn off into another tub, and 1 gallon of concentrated sulphuric acid is added, in order to dissolve all remaining starch, dextrin, and glutinous matter, and to convert them into grape sugar. Finally, a quantity of compressed yeast is added to start the fermentation. This yeast settles to the bottom of the tub, but as soon as fermentation has started (usually in half an hour), and carbonic acid is being generated, the current of the latter gradually carries the yeast to the top of the liquid. It remains there, covered by a layer of the chaffy parts of the grain, until the yeast has accumulated in a sufficiently large quantity, and the current of carbonic acid has become strong enough, when it eventually breaks this film of chaffy particles, and collects on top of it in the form of foam. This goes on until all of the nutritive matter has been assimilated. The foam, containing all the yeast, rises about 2 feet above the top of the liquid, dependent on the size of the tub, and when no more effervescence is noticeable, fermentation is complete.

Immediately after fermentation has ceased the foam is drawn off by means of troughs, and run, together with a fresh supply of water, into a revolving, six-sided, and declining cylinder, lined with a sufficiently fine strainer. During this step of the process nearly all the chaffy remnants of the grain are separated, and the liquid, containing the yeast plant in suspension, is allowed to flow into a basin, whence, by means of a trough, it finally flows into a large tub.

The product in this tub is prevented from further fermentation by the addition of a sufficient quantity of ice. The yeast is now allowed to settle, the supernatant liquid drawn off, and the residue repeatedly washed to free it from all mechanical impurities.

When sufficiently cleansed it is run into a press by means of a steam-pump. The press is constructed of a column of iron frames, both sides of each frame being covered with a very fine straining-cloth, and all the parts fitting tightly into each other. The yeast having been pumped into such a press, the water is separated from it by means of the strainer, and carried off through a waste pipe.

The yeast, now compressed, is taken out in the form of large cakes, and in this condition it is brought into commerce.





*The following applications for Patents have been registered at the Patent office.*

**Apparatus.**—20,845.—December 23, 1889.—J. McEwen. Improvements in apparatus for syringing aerated water beverages.—1,642.—January 30, 1890.—T. Greenish and H. Glew. For inhaling and injecting medicinal vapours.—1,988.—February 6, 1890.—F. L. Johnstone. For filtering and derisinsing perfumes, tinctures, essences, &c.—2,005.—February 6, 1890.—J. Wood. For making and supplying at the counter aerated drinks in any variety.

**Bath Brushes.**—477.—January 10, 1890.—M. Frischer.

**Bottles**—849.—January 16, 1890.—T. Schenk. An improved dispensing bottle.

**Chest Protector.**—20,369.—December 18, 1889.—A. C. Herts. Combination, with shirt front.

**Cosmetic.**—2,209.—February 11, 1890.—M. Cook.

**Disinfectant.**—1,289.—January 24, 1890.—A. Arnott. A new disinfecting paper.—1,589.—January 29, 1890.—C. T. Kingzett.

**Feeding-bottles.**—1,852.—February 4, 1890.—H. Provis. Feeding-bottle suspender.—2,235.—February 11, 1890.—H. H. Lake.

**Feeding Requisites.**—561.—January 11, 1890.—C. S. Foster. Improvements in mouthpieces suitable for infants' feeding-bottles.

**Filters.**—341.—January 8, 1890.—C. Nield.—440.—January 10, 1890.—J. P. Jackson. Improvements in filters for wine and other liquids.—564.—January 11, 1890.—C. R. E. Bell and E. D. Reeve.—606.—January 13, 1890.—J. Broek and T. Minton. Improvements in filter presses.—648.—January 14, 1890.—E. M. Knight.—828.—January 16, 1890.—A. Smith. For the purification of water and other liquids.—1,252.—January 24, 1890.—P. Parker.—1,307.—January 24, 1890.—A. Capillary.—1,970.—February 6, 1890.—G. Sellars.

**Foods.**—1,945.—February 5, 1890.—F. H. Lenders.

**Inhaler.**—1,367.—January 25, 1890.—W. K. Ferguson. Pocket inhaler.—1,720.—February 1, 1890.—G. T. Wilkinson-Newsholme.

**Lotion.**—2,303.—February 12, 1890.—H. Coker, C. Mitchell, and W. S. Fosdick. For curing mange, and other skin diseases, in horses, dogs, and other animals.

**Medicinal Appliances.**—1,027.—January 21, 1890.—W. P. Thompson. Devices for applying remedial agents or medical compounds for catarrh and similar diseases.

**Medicinal Compound.**—484.—January 10, 1890.—J. Bilham.

**Medicinal Preparations.**—1,275.—January 24, 1890.—C. O. Andrae. A new medicine.—1,380.—January 27, 1890.—R. J. Downes. A solution of iodine for medical purposes.

**Nitrate of Ammonia.**—2,432.—February 14, 1890.—A. M. Cbance and H. W. Crowther.

**Nursing Requisites.**—1,810.—February 3, 1890.—E. D. Mincher. For the better and safely holding of teats, rings, or pads for soothers and comforters for babies.

**Ointments.**—1,048.—January 21, 1890.—E. Ireland. "Skin aurora herbal ointment.

**Pessaries and Suppositories.**—20,867.—December 30, 1889.—N. H. Martin and C. E. Stuart. Improvements in and the moulds for the production thereof.

**Refiner (Oil).**—1,343.—January 25, 1890.—T. H. Gray and S. S. Bromhead. Improvements in refining linseed and other oils.

**Respirators.**—20,552.—December 21, 1889.—H. J. Leeuw and G. J. Davis. Asbestos.—862.—January 16, 1890.—B. Darnfield. Antiseptic.

**Sheep-dip.**—889.—January 17, 1890.—G. Craig.

**Show-bottles.**—744.—January 15, 1890.—A. McConnell.

**Soaps.**—1,047.—January 21, 1890.—E. Ireland. "Aurora herbal cosmetic soap."

**Steam-kettle.**—2,117.—February 10, 1890.—F. Jones. A combined steam-kettle and food-warmer.

**Surgical Appliances.** 364. January 8, 1890.—H. H. Lake. An improved sanitary bandage.—755.—January 15, 1890.—A. Heim. An improved navel rupture belt.

**Syrups.**—2,129.—February 10, 1890.—G. S. Dobrashian. Compound syrup of Sarracenia purpurea.

#### *Specifications recently published.*

1889.

676. De Mol and Gerken. Filters. 8d.

1,462. Dueretel. Filtering apparatus. 8d.

1,871. Spence. Feeding-bottles. 4d.

1,885. Roth. Nitrate of ammonia, &c. 6d.

1,981. Bennett. Flesh-brushes. 6d.

1,989. Castner. Double chlorides of aluminium. 6d.

2,160 and 2,575. Mond. Volatilising ammonium chloride, &c. 6d.; 8d.

2,241. Overlach. Syringes. 8d.

2,285. Varrall and Brise. Filter, &c. 6d.

2,499. Witt. New azo dyes. 6d.

2,310. Parker and Robinson. Chlorine and sulphate of soda. 4d.

2,360. Brasier and Kuowles. Dye, ink, &c. 4d.

2,540. Cartwright. Feeding-bottles. 6d.

2,569. Du Vivier. Pyroligneous acid. 8d.

2,786. Muspratt and Eshellmann. Chlorates, &c. 4d.

2,938. King. Disinfecting vessels. 6d.

3,125. Mather. Filters. 8d.

3,745. Domeier. Fixing perfumes. 4d.

4,037. Hannay. Liquid chlorine. 8d.

4,316. Carez. Ammonium nitrate. 4d.

4,417. Wise. Anhydrous chloride of magnesium, &c. 6d.

4,558. Colley. Medicating. &c., paper. 4d.

9,699. Milne. Surgical bandages. 4d.

9,700. Milne. Surgical pads. 4d.

11,974. Roberts & ors. Antiseptics. 4d.

11,993. Burrows. Respirator. 6d.

12,451. Wahlenberg and Wahlenberg. Ammonium nitrate 4d.

15,190. Rohrbeek. Disinfectant. 8d.

15,404. Thompson. Tooth-brushes. 6d.

15,539. Alzugaray. Insecticide. 4d.

17,348. Johnson. Acetic acid, &c. 4d.

17,436. Haddan. Discolouring tannic-acid solutions. 4d.

18,046. Robinson. Thickening linseed oil. 4d.

18,592. Johnson. Soft soaps, &c. 4d.

18,843. Pritzius. Palate plates for artificial teeth. 8d.

18,901. Dreyfus. Colouring matters. 4d.

19,067. Hawtin and Kent. Tooth, &c., brushes. 4d.

20,135. Johnson-Johnson. Acetic acid, &c. 4d.

20,490. McEwen. Aerated-water beverages. 6d.

**AMERICAN LARD.**—A correspondent of the *Chemical News* states that the reason why American lard is so soft when it arrives in this country is because of the very small quantity of stearin which there is in hog's fat. The percentage is much lower than in ox fat. Steam-granulated lard is particularly soft. The correspondent advocates the addition of a little stearin to it, and says that this would not be against the spirit of the Sale of Food and Drugs Act. That may be; but it might be a serious thing if the lard were used for medicinal purposes.



## BRITISH AND FOREIGN CONSULS' REPORTS.

## CEYLON.

*Industrial Undertakings.* In the course of the year 1889 a new oil works, with plant erected on European model, has commenced working in Colombo. The manufacture of biscuits from fine dried copra is extending.

*The German Steamship Lines.* Among the new German steamship lines which may become important factors in the trade of Ceylon are the German-Australian Company (Hamburg), the Hamburg-Calcutta line, and the extension of the Hansa Company's line from Bremen to Calcutta. Owing to these direct connections with Germany, the visible importation of German goods for the first time in the commercial history of Ceylon has attained important figures. Of the total trade of Ceylon for 1889, viz., 92,600,000 rupees, Germany now ranks third among modern nations, or fifth if we include British India and the Maldiv Islands. During the year 1889 the Hamburg steamers landed 777,655 rupees' worth of goods at Colombo, and the Bremen liners 148,829 rupees, while between them they took away for 226,870 rupees of Ceylon goods. Nevertheless, the German consul complains that the importation of German goods into Ceylon is not developing sensibly. The only difference is that formerly these goods came *via* England, and now they go direct. The following figures give some idea of the German share of Ceylon trade in 1889:—

	Soap	Spices	Dyes	Perfumery	Medicines
Total imports Rs. ..	121,563	211,339	78,979	69,044	175,317
German share „ ..	27,795	6,348	3,534	3,033	1,665

## CHILE.

*Trade in 1888.* The value of imports in 1888 exceeded those of 1887—from Great Britain by 28.77 per cent., from Germany by 20.75 per cent., and from France by 12.37 per cent.; whilst they decreased from the United States by 3.36 per cent., and from India by 26.18 per cent. Of the total value of imports, amounting to 60,717,698 dollars, more than 26,000,000 dollars worth came from Great Britain. As regards exports, 80 per cent. of the value in 1888 went to Great Britain. The amount exported in 1888 to England exceeded by 25.50 per cent. the exports of 1887; whilst exports to Germany diminished by 6.29 per cent., and to the United States by 20.70 per cent. In drawing conclusions from the above figures, one must remember that all articles of merchandise are classed as belonging to the nationality of the ship on board of which they have been imported into Chile; and, again, that Chilean exports shipped for Europe or elsewhere on British ships are recorded under exports to Great Britain.

## FRANCE.

*Colouring Wine.* The Chilean Consul-General in London, in a communication regarding the use of the berries of a plant called the maqui for colouring wines, states that the maqui is a small evergreen shrub, common in Chili along the course of torrents and in shady mountainous woods. It is not cultivated, but grows wild, and the berries, which, in Chili, are eaten either fresh or preserved, are now beginning to be exported largely to Europe for the purpose of colouring wines. In the three years ending 1887 the exports were respectively as follows:—26,592 kilos., 136,026 kilos., and 431,392 kilos. To France alone the exports during the same years were, 500 kilos., 115,000 kilos., and 315,774 kilos. The berries are added to the grapes in order to give the wine a good colour.

## GERMANY.

*Pharmaceutical Factories in Cassel.* Several firms in Cassel are engaged in the manufacture of surgical and pharmaceutical apparatus. They employ altogether about 500 workpeople, of whom 300 are women, and have an aggregate annual turnover of about 100,000*l.* The production of soaps in Cassel remains stationary at from 1,800 to 2,000 tons yearly, but in order to sell this quantity the makers have to content themselves with very

low prices indeed. There are only about 50 workmen in this business, and their pay averages from 12*s.* to 15*s.* per week. There is one important firm of manufacturers of polishing pastes and powders who turn out their goods by means of machinery. They employ 30 hands, and pay the men from 1*s.* 10*d.* to 2*s.* 6*d.*, and the women from 10*d.* to 1*s.* 2*d.* per day. They have great trouble to sell their goods in Germany owing to the excessive competition, but they find a good market for their surplus in the United States at remunerative prices.

## ITALY.

*British Trade in Italy.* Some time ago the Italian Chamber of Commerce in London made enquiries from all the leading firms in Italy concerning their commercial relations with the United Kingdom, and the feasibility of the extension of their purchases from this country. The results of their enquiries were embodied in a long report, published in Italian, from which we take the following notes.

*Drugs and Spices.* The annual importation of senna leaves into Genoa amounts to about 600 bales. This quantity does not seriously vary from year to year, and the drug is not bought anywhere else than in England. Of spices, only cloves and cinnamon are obtained from England. A Marseilles house has established a branch in Zanzibar, and offers cloves direct from that port, but still the London merchants are often able to offer more advantageous terms. Of cinnamon the second and third qualities are the most esteemed in Italy, and other countries, such as Holland, are not in a position to compete. Pepper, on the other hand, is generally purchased direct from Singapore.

*Fine Chemicals.* Mr. Melchiorre Petralia, pharmacist of Palermo, writes that in his district only the very smallest percentage of fine chemicals is imported from England, because articles of as good, if not better, quality are obtainable from Germany at a lower price. Few, if any, of the finer pharmaceutical chemicals are made in Italy; but, on the other hand, all chemicals for current use are manufactured in that country.

*Heavy Chemicals.* In 1888, writes Mr. Leo Negri from Liverpool 11,604 tons of soda were imported into Italy from England, the value being 58,800*l.* France, Germany, and Austria also participate in this trade to some extent, but not seriously. Nevertheless, the imports of soda from England are diminishing, although the British article is generally preferred above any others, as its quality is better, and the sale conditions not so stringent. Mr. Negri does not think that there is any reason to believe that Italy will ever become independent from foreign countries for her soda supplies. Potashes are not bought in England at all. There are some factories in Tuscany, but they also do not produce much. The bulk of this article comes from Austria-Hungary, where the largest works exist. Britain, however, holds the field in bleaching-powder, hyposulphite of soda, nitric and carbolic acids, bichromate and chlorate of potash, phosphorus, carbonate of ammonia, nitrate of lead, &c.

*Medicines.* Mr. Carlo Wiedemann, pharmacist to the German Emperor at San Remo, writes that the bulk of the goods purchased by him in England come under the denomination of proprietary medicines, for which he has a large sale among English residents in his district. He does not think it will be at all possible for Italian industry to compete in any way in this branch of trade.

*Musk.* Musk is imported into Italy not only from England, but also from France and Germany, because in these latter countries there are now also importers from the producing countries. The imports of musk from England into Italy are estimated at 20 kilos. to 30 kilos. per year, of a value of 4,000*l.* to 6,000*l.*

*Perfumery.* Messrs. Usellini & Co., in Milan, state that it is not possible to give exact figures showing the extent of the business in British perfumery with Italy. They believe, however, that the two London firms of J. & E. Atkinson and S. R. van Duzer alone supply about one-half of the total English perfumes consumed in Italy. The imports of England have been stationary for some years; large quantities of perfumery come from France, and a little from Germany, while there are also some factories in Italy turning out ordinary goods. The English perfumery is acknowledged in Italy as the best so far as



quality is concerned, although not so delicate in aroma as the French. It is thought doubtful whether, for many years to come, the local industry will be able to equal the perfection of the English goods, but they will be able shortly to replace the cheap foreign goods by others of home manufacture. The manufacture of perfumery is a growing industry in Italy, and many new factories are springing up everywhere. The principal ones are located in Milan, Florence, and Naples, others in Turin, Genoa, Rome, &c. It would be an immense advantage if this industry could be united in one centre, and it appears that Turin, from its favourable situation with regard to raw materials, would be the most suitable headquarters. Messrs. A. Migone & Co., of Milan, on the other hand, assign to England the third place, after France and Germany, in their market. They say that the English perfumes used in Italy are always of the best, but, on the other hand, the toilet soaps are not usually of the finest quality. The use of English toilet soaps is declining because they are not so nicely shaped as the soaps made by the new French, or cold, process, and also because of the growth of the home industry in Italy, which will soon be able to export successfully to the British Colonies. Mr. Angelo Migone also names Atkinsons and Rimmell as the principal English firms in the Italian market. They estimate the value of British perfumes used in Italy at from 6,000/ to 8,000/ per annum. They say that one of the first necessities for the Italian manufacturers, if they want to compete successfully with the English makers, must be a more liberal resort to advertising. Messrs. Ricco & Matterozzoli, of Rome, write in a similar way. The same firm thinks that it would be possible for Italy, under certain circumstances, to take the place now occupied by France in supplying the English market with flower pomades, essential oils of thyme and rosemary, and other products.

#### Oils.

The export of linseed oil from Liverpool to Italy has been stopped altogether two or three years ago by the enormous duty put on the article by the Italian Government, and the four or five firms who were engaged in this business have given it up. It is thought that the Italian producers will gradually succeed in supplying the wants of the country independently of the foreigners.

#### JAPAN.

*Foreigners.* According to the last census, the number of foreign subjects and business firms domiciled in Japan was as follows:—

	Chinese	British	American	German	French	Swiss
Firms..	203	19	29	19	20	8
Individuals ..	2,981	708	255	194	125	43

#### Japanese Sulphur Mines.

The export of sulphur from Hakodate shows a decrease from 7,096 tons, value 16,917/., in 1887, to 3,609 tons, value 8,681/., in 1888. This is attributable almost entirely to the fact that no vessels could be induced to call at the port to take the sulphur away, the price, delivered in Hakodate (2/ 3s. 2/ per ton), being sufficiently high to prevent its being shipped. The shipments last year went to San Francisco.

What prevents Japan from rivalling Sicily as a sulphur-producing country are the absence of facilities for increasing the output of sulphur, and for shipping it. At present there is only one place where sulphur is worked on any scale, and that is Atosanobori, near Kushi, on the south-east coast of the island on which Hakodate is situated.

The Atosanobori mine is part of an extinct volcano. The sulphur covers a considerable portion of the slopes of the hill and of the sides of the old crater. Supposing the ore to be only 4 or 5 feet thick on the surface, there must be at this place over 1,000,000 tons of high-class ore. Recent borings (by Japanese) give the thickness of ore as 30 feet in some places, but it is probable that the richness of the ore decreases with the depth below the surface. It would be quite safe to count upon at least 5,000,000 tons of good ore. At present the ore yields over 50 per cent. of pure sulphur, a small portion of it being almost pure. The residue from the refining kettles would well repay a second treatment, as it appears to contain a considerable percentage of sulphur, as much as 15 per cent. probably, or about the average yield of the whole of the Sicilian sulphur ore.

The present output from Atosanobori does not exceed

10,000 tons of sulphur per annum (output about 9,000 tons in 1888). The cost of the sulphur, free on board at Kushi, would be about 30s. 10d.

#### Yokohama and Hiogo.

Of the three principal ports in Japan from which the foreign trade of the country is conducted Yokohama is still by far the most important, as the following figures, showing the percentage proportion of each port in the foreign trade of Japan, will demonstrate:—

	Imports.		Exports.	
	1888	1887	1888	1887
Yokohama	56 p.c.	61 p.c.	65 p.c.	64 p.c.
Hiogo-Osaka	40 "	34 "	25 "	21 "
Nagasaki	3 "	3 "	8 "	8 "

But Hiogo is gaining importance in an extraordinary degree, and the belief in its future is so generally recognised that gradually nearly all the big Yokohama firms have established branches there. Hiogo is the central market for the prosperous southern provinces of the empire, and also for the islands of Shikoku and Kiusiu.

#### Aniline Dyes.

In spite of the fact that 1887 had already shown a strong increase in the import of aniline dyes over the preceding year, the figures in 1888 show a still further enormous increase; the imports have been in 1887, 306,884 cattie; and in 1888, 353,351 cattie, of which 249,443 cattie were imported directly from Germany. The most important aniline dyes for the Japanese market are the following:—Violet is still the most extensively used colour, although its sale is falling off, especially as far as concerns the commonest grade. Of blue, only best qualities are saleable, while the demand for magenta is very small compared with what it used to be, and only the best grades are still demanded. Green, in crystals, maintains its position, but powdered green has become almost obsolete. Brown, for silk-dyeing, is also declining in importance; eosin and erythrosin have become almost obsolete. The demand for good reddish tints of phloxin and scarlet is increasing. Corallin is now bought in lumps in England, this grade having superseded the powdered German article. The demand for picrin, orange and yellow, is also on the wane; as regards orange only a few well-known brands which have an old reputation are still saleable, because they are the only ones which, mixed with phloxin, produce a certain colour which is much liked by the natives. Cotton red of the best quality finds a growing market. Alizarine dyes are gradually growing in importance, as the Japanese dyers are gradually surmounting the difficulties which they have hitherto experienced in using these dyes.

#### NEW SOUTH WALES.

#### Hints to Exporters.

The import trade into Australia of chemicals, drugs, and medicines from Germany, says the German consul at Sydney, could easily be increased to a considerable extent, but only by a close familiarity with the exact requirements of the local market. Perfumery also, eau de Cologne especially, is an article of very large consumption, and the same applies to toilet soaps. There should be an opening for goods of a superior grade. Natural mineral waters have not taken much footing yet, though some improvement is discernible. In general, it may be said that it depends, to a very large extent, upon the personal qualifications of the local representative whether a certain new article or unknown brand can be successfully introduced. Advertising is also a very large factor here, and British and American firms frequently spend large sums upon the introduction of their specialties by this means. If once an article has been successfully introduced, it is absolutely necessary to keep a sufficient stock always available here.

*Acetic Acid.* In 1886 the imports of this article into New South Wales were 5,341 gallons, and in 1887 only 3,022 gallons. The German share of this trade was about 2,000 gallons each year, while the English business fell off considerably in 1887. The German acid, being concentrated, is about 30 per cent. dearer than the English.

SACCHARIN OF COMMERCE is composed, according to H. Meyer, of 70 per cent. of orthosulphaminebenzoic anhydride and 30 per cent. of parasulphaminebenzoic acid.



## WILLS OF DECEASED CHEMISTS.

The will, dated March 23, 1885, with a codicil, of the late Mr. Henry Harrison, of North Shields, who died on November 24, 1889, has been proved at Newcastle Probate Registry by the executors, Mr. Henry Harrison and Mrs. J. E. Cackett, the deceased's son and daughter. The personal estate amounted to 4,821*l.* 18*s.* 6*d.* The testator leaves his residence, with the stables, furniture, &c., to his said son, and after providing for certain annuities to his sisters, and legacies to his nieces, he bequeaths the residue of his property, real and personal, between his afore-mentioned son and daughter.

Letters of administration of the estate of the late Mr. Walter Snape, of 44 Addison Road North, chemist and druggist, who died on February 21, 1889, intestate and without parent or wife, have been granted at the principal probate registry to Miss Elizabeth Snape, Mrs. Hannah Morris, of Whitchurch, and Mrs. Sarah Wood, of 13, Radcliffe Road, the sisters and next of kin of the deceased. The gross value of the personalty amounted to 739*l.* 3*s.* 2*d.*

The will of the late Mr. Charles Hayward, of St. John Street, Clerkenwell, manufacturing chemist, who died on March 18, 1889, has been proved at the principal probate registry by Mrs. Mary Jane Hayward, the widow, and one of the executors, power being reserved on behalf of Mr. W. F. Ray, the other executor. The gross personalty amounted to 1,627*l.*, and the net to 1,562*l.*

The will, dated February 4, 1889, of the late Mr. Page D. Woodcock, pharmaceutical chemist and patent-medicine proprietor, of Lincoln, who died on December 4, 1889, was proved at Lincoln Probate Registry on January 6, 1890, by Mr. Page Horner Woodcock, the son, and one of the executors, power being reserved on behalf of Mr. J. S. Battle, the other executor. The gross personalty amounted to 2,085*l.* 9*s.* 9*d.* The testator leaves 50*l.* each to his son William and to the divorced wife of the said son, and 100*l.* each to his other children, except his daughter Jessie. The testator bequeaths the rest of his estate, real and personal, to his son and executor, subject to his entering into bonds to pay annuities to two members of the testator's family. The testator also expresses a wish that his youngest son should be employed in his business.

Letters of administration of the personalty of the late Mr. F. W. Haydon, of Fordingbridge, pharmaceutical chemist, who died on January 9, 1890, intestate, were granted at the principal probate registry to Mr. W. F. Haydon, the son and next-of-kin of the said intestate. The gross personal estate amounted to 1,694*l.* 1*s.* 8*d.*

The will, with a codicil, of the late Mr. Richard Forrest, pharmaceutical chemist, formerly traveller for Messrs. Barron, Squire & Co., wholesale druggists, of Bush Lane, E.C., who died a bachelor on July 4, 1889, has been proved at the principal probate registry by Miss Eliza Forrest. The gross personal estate and effects amounted to 6,792*l.* 4*s.* 3*d.*, and the net to 6,534*l.* 11*s.* 7*d.* The testator appoints his said sister, Miss Eliza Forrest, of 14 Old Burlington Street, the sole executrix of his estate.

The will of the late Mr. W. G. Jackson, of Hartlepool, chemist, who died on December 1, 1889, was proved at Durham, on January 28, 1890, by Messrs. Henry Jackson, the son, and William Kay, the executors. The gross personalty amounted to 6,027*l.* 19*s.* 5*d.* The testator bequeaths his furniture, plate, wines, jewels, and household effects in general, to his widow absolutely. He leaves the rest of his estate in trust to his executors (directing them to sell his real and leasehold properties) for the benefit of his widow for life, with remainder to his children.

The will, dated June 28, 1889, of the late Mr. John Bonny, gentleman, formerly a chemist and druggist, of Market Street, Blackpool, who died on November 21, 1889, was proved at Lancaster Probate Registry, on January 2, 1890, by Mrs. Bonny, the widow, and one of the executors. The gross value of the personalty amounted to 200*l.* 14*s.* 3*d.* The testator leaves his real estate, together with the personalty, in trust for the benefit of his widow, with remainder to his children.

## Trade Report.

*Notice to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.*

*It should also be recollected that for many articles the range of quality is very wide.*

42 CANNON STREET, E.C., March 20.

**B**USINESS in the drug and chemical markets, with the exception of certain classes of heavy chemicals which have been affected by the strike in the coal trade, has been of a rather quiet character, and at to-day's drug auctions a tone of exceeding dulness prevailed. Among chemicals we have to record an improvement in the price of quicksilver, which will affect all mercurials. Citric and tartaric acids are also dearer, while acetic acid is also higher in price, and oxalic is full up. Quinine, on the other hand, is decidedly easier, and cream of tartar is scarcely up to the highest point reached last week. In drugs there are a good many advances to report. Raw camphor is higher than at the time of our last report, but there has been no business reported for days. Fine cardamoms and short vanilla beans bring full prices. Jalap has advanced and Guayaquil bark sold considerably above valuation to-day. Senna is firm, and cuttle-fish, gamboge, spermaceti, and nux vomica are tending higher. Ipecacuanha is unchanged, but not in quite so strong a demand as at the last auctions; gum myrrh and cascara are drooping. Beeswax sells at a strong advance. In the outside markets bleaching-powder and most soda salts are dearer; nitrate of soda, however, is easier. Castor oil is dull and falling. Gambier dearer, especially for arrival. Shellac dull and easier for futures. Japan galls have sold at a decline, and benzol is also on the downward path.

THE NEXT DRUG AUCTIONS will be held, it was announced to-day from the pulpit, at four weeks from to-day, and in the meantime, the proprietor of the sale room will take steps to improve the ventilating arrangements of the room. The information that this highly necessary work would be undertaken was received with much applause.

UNIFORMITY OF INDIAN WEIGHTS.—The Government of India have addressed the local governments regarding the practicability of securing a uniform system of weights in all India. That which appears the best solution, according to the Government, is the tola of 180 grains, which is the exact weight of the rupee; the seer of 80 tolas; and the maund of 40 seers. All Indian railways have already adopted these weights, and the tendency of trade will naturally be to follow this example. The local governments are asked to take the opinions of the principal trading associations before forwarding their replies.

ACIDS.—*Acetic*: Since our last report the German Convention prices have been advanced. *Citric acid* is rather firmer, and there are no sellers on the spot under 1*s.* 3½*d.*, though at the price we should think as much could be bought as would be wanted. For forward delivery, 1*s.* 4*d.* is the nearest price named. *Oxalic acid* remains very firm, though 1*s.* 3½*d.* would lead to business. *Sal acetos* quoted nominally at 5*d.* per lb., though it does not seem to move off at that price. *Tartaric* firmer, with an inclination to advance; English, 1*s.* 3½*d.* to 1*s.* 3¾*d.*; foreign, 1*s.* 2½*d.* to 1*s.* 2¾*d.* on the spot, and for forward delivery 1*s.* 3*d.* per lb. From Italy we hear that there is very little business doing in tartaric materials, because holders decline to part with them at the present prices. The market for concentrated *Lemon juice* in Sicily is also improving. It is reported that it now turns out that the production is not so large as has been anticipated.

ALOES.—A portion of the recently imported Cape aloes



was offered for sale to-day, but buyers did not seem to care to operate, and nearly the whole was bought in, though a few lots of partly drossy seconds sold at 22s. to 23s. per cwt., and 5s. was taken for some very low grade aloes. For fine bright hard quality 26s. is still named as the price, but to sell less would have to be accepted, we should think. Common *Curaçao* aloes again sold exceedingly cheaply to-day, ordinary dull and coarse at 10s. to 16s. 6d.; very low at 5s. to 5s. 6d. per cwt. There was an unusually large show of *Zanzibar* aloes, including many lots of good quality, which were sold rather cheaply, pale and hard to somewhat darkish in skins, 100s. to 102s. 6d., ordinary and common from 50s. down to 20s. Several parcels of *Zanzibars* in tins were also disposed of, good hardish orange up to 57s. 6d., and from that price down to 10s. for dark watery.

**AMBERGRIS.**—A small parcel of 5½ oz. fine ambergris of good flavour was sold to-day in auction at the very high figure of 170s. per oz. Another parcel of about 138 oz., dark and brown, was bought in at 65s. to 75s. per oz. nominally, but much less would be taken, we should think.

**AMMONIA SALTS.**—*Carbonate* remains at 3¼d. to 3½d. *Sal ammoniac* also steady at 37s. and 35s. respectively. *Sulphate* dull of sale, Beekton terms, 11l. 12s. 6d.; 24-per-cent. London grey, 11l. 17s. 6d.; Hull and Leith, 11l. 16s. 3d.

**ANISE.**—*Russian* anise remains quiet, and sells privately at the prices last quoted. Two lots of genuine *Chinese* star-anise were shown to-day and bought in at 120s. per cwt., which the owners claim to be the price, but there were no offers. For 18 cases false Japanese star-anise 40s. to 42s. 6d. per cwt. is asked. According to mail reports from Macao, dated February 10, there was no stock of good quality star-anise left there, and the market was exceedingly firm. A few piculs of medium quality were held at high prices by the owners.

**ANNATTO.**—A few lots of good bright Ceylon seeds were bought in to-day at 3½d. to 4d. per lb.

**ANTIMONY.**—Dull. *Star regulus*, 70s. to 71s. nearest price.

**ARSENIC** firm at 13s. 9d. to 14s. for white powder, landed terms.

**BALSAMS.**—There is no change in the market since our last report. *Peruvian* balsam is held by the owners at 4s. per lb., although a few lots might still be had at a trifle under that price, we believe. *Tolu* quoted at 1s. 4½d. to 1s. 5d. At the auctions 13 cases of old import were bought in at the latter figure.

**BENZOL.**—Prices are still declining, and it would now be possible to buy 90-per-cent. at 3s. 4½d., and 50-per-cent. at 2s. 7d. to 2s. 7½d. It is stated that these prices are much below what would be justified from the state of the market, and that large purchasers are only waiting for a slight further decline to buy heavily.

**BITTER WATER.**—Another parcel of 10 cases (of 50 bottles each) Franz-Joseph Hungarian bitter water were offered to-day, but the price of 10s. per case, paid at the last auction, was not obtainable to-day. We heard it stated that the article costs 35s. per case to lay down here.

**BIRD-LIME.**—Two tubs of Japanese bird-lime were bought in to-day at 1s. per lb.

**BLEACHING-POWDER** has advanced in consequence of the coal strikes in the North. Tyne to-day quotes 5l. 5s. to 5l. 7s. 6d.; London, 6l. 15s. to 7l.

**CALUMBA.**—Good bright washed and selected root is held at 35s. per cwt., and for a parcel of fair yellowish mixed natural root 12s. 6d. per cwt. is asked, but the demand is quite dead at the moment.

**CAMPHOR (CRUDE).**—Another vessel has arrived from Japan since our last report with several hundred piculs, but the market remains very firm. The price of 11l. 5s. per cwt. was paid on the spot some days ago, for a small quantity of good Japan camphor, and the latest c.i.f. transaction was at 10l. per cwt. But we have not heard of any business during the last few days, and at present the market is firm, but quiet. At auction, 50 tubs were offered and bought in at 11l. 5s. which is said to be the price. Mail reports from China and Japan, describe the markets there, as exceedingly firm, while supplies continue very small.

**CAMPHOR (REFINED).**—No alteration in price this week. The English refiners quote 2s. 8d. per lb., but some second-hand parcels could still be picked up, we think, at 2s. 5d.

**CANNABIS INDICA** continues to sell at 4d. per lb. for fair stalky and dusty mixed tops; this was the price paid to-day for 3 bales.

**CANTHARIDES.**—*Russian* steady, but quiet up to 4s. per lb., London terms. Ten cases *China* offered at auction to-day were bought in at 1s. 3d. per lb., though less would, no doubt, be taken.

**CARDAMOMS.**—A moderate quantity was offered at to-day's auctions, and about one half sold at full prices, occasionally somewhat dearer for the better grades, but ordinary and medium lots went cheap. *Mysore*: Fine pale heavy medium to bold, 3s. 2d.; yellow long and round mixed, heavy medium size, 2s. 5d. to 2s. 6d.; smaller size, 1s. 6d.; darker mixed and split, 1s. 4d.; medium long fair pale, 1s. 4d. (a bargain); smaller size, 10½d.; and brown partly split and specky, 10d. per lb. *Mangalore*, CC over C brand, rather small, and of ordinary quality, were bought in at 2s. 7d. per lb. Good plump *Wild Ceylon* sold at 1s. 6d. per lb. *Ceylon Malabar*: Good long pale, 1s. 9d.; good medium size yellow round, 1s. 6d. to 1s. 7d.; smaller size, partly badly clipped, 1s. 4d. to 1s. 5d.; medium brown round, partly split, 1s. 2d.; brown split and shelly to very ordinary, 10½d. down to 6d. per lb. *Seeds* brought 1s. 6d. per lb. The exports of cardamoms from Ceylon between October 1 and February 20 have been:—In 1889-90, 207,610 lbs.; 1888-89, 136,336 lbs.; 1887-88, 159,430 lbs.; 1886-87, 148,147 lbs.

**CASCARA SAGRADA.**—Thirty bales of good bright bark recently imported were offered at the auctions; there were no bids for it, but the owner stated that he would be prepared to accept a bid of 50s. per cwt.

**CHIRETTA.**—For 10 bales of fair average quality 3¼d. per lb. is asked.

**CINCHONA.**—About 100 bales of *Guayaquil* bark of recent import were offered for auction, and sold, with excellent competition, at extremely high prices, the best lots bringing 2d. and 3d. above valuation, viz., 1s. 9d. per lb. for good silvery and mossy quill, while for other fine lots 1s. 10d. to 2s. is asked. Good sound brown quill realised 1s. 3d. to 1s. 8d.; damaged ditto, 1s. 3d. to 11d.; fair brown rusty, 10d., down to 2d. and 2½d. for very common and damaged. Several parcels of flat *Calisaya* bark were all bought in, good bright genuine at 1s. 8d. per lb. Five bales good very bold but partly damaged *Carthagena* sold at 6d. to 8d. per lb. Our imports from all quarters since our last report have been 573 packages. Up to the present time the following quantities are declared for auction on Tuesday next:—Ceylon bark, 726; East Indian, 434; Java, 170; and South American (Cuprea and Pitayo), 282; total, 1,612 packages.

**CIVET.**—A parcel of 14 horns was shown to-day and bought in at 8s. 6d. per oz. The price is said to be 6s. 6d. per oz.

**COCA LEAVES.**—The market shows no change since our last report. At to-day's auctions, Java leaves, rather ill cured, small brown and green mixed, and partly crushed, were all bought in at nominal prices.

**COLCHICUM SEED** is reported to be dearer on the Continent.

**COLOCYNTH.**—19 cases good, partly pale, dark apple are quoted at 1s. 3d. per lb.; for a lot of ordinary very seedy and small mixed Syrian from 10d. to 11d. was accepted.

**CONDURANGO.**—Several parcels, amounting altogether to 156 bales, partly direct import from South America, partly shipped *via* Hamburg, were all bought in to-day. Pale, but woody, is held at 7d. per lb., and darker damaged lots at 6d.

**COPPER (SULPHATE).**—Flat, 25l. on the spot. July-August might be had at 21l. The deliveries for contracts do not seem to be proceeding very quickly.

**CREAM OF TARTAR.**—The demand is not quite so brisk, and prices are maintained at the highest figure of last week; 107s. 6d. would be the nearest price for best white crystals, both spot and forward.

**CROTON SEED.**—Dull, and without demand. Fair mixed Ceylon bought in at 15s. to 16s. per cwt.



**CUBEBS.**—Nineteen bags fair, partly doubtful mixed, slightly stalky berries, were bought in at 22*l.* to 23*l.* per cwt. Another parcel of 3 bales of rough brown and grey mixed berries was advertised for sale, "without reserve," but the owners then refused a bid of 10*l.* per cwt. This being protested against on the ground that, whatever the bid might be, it ought to be accepted, the lots were put up again. This time a sudden and strong competition arose, and with quick but irregular bidding, the price was run up to 14*l.* 5*s.* for one and 15*l.* 12*s.* 6*d.* for the other lot. At these limits the cubebs were "knocked down." A telegram from Java arrived at Amsterdam yesterday, stating that the last crop will again turn out a small one. Prices in Java are held very high—viz., nearly at the current European rates—and the shipment of cultivated berries seems to have ended, so that there is reason to suppose, that the whole of the last crop of cultivated cubebs has been received in Europe already. The stock of fine cultivated berries in Holland has been reduced, owing to sales at very high rates during the last few days, to a few bags only.

**CUMIN SEED.**—Fair bright Malta is held at 25*s.* per cwt.; a lot of rather dark seed, good flavour, sold at 21*s.*

**CUTTLE FISH.**—Still advancing in price. About 70 cases were offered to-day, and nearly all sold with good demand and competition, medium to bold, partly broken, fair pale, 4½*d.* to 5*d.*, and a darker and more broken parcel at 3½*d.*

**DAMIANA LEAVES.**—200 lbs. broken leaves, good green, partly yellow mixed, sold cheaply at 5*d.* to 5½*d.* per lb.

**DRAGONSBLOOD.**—Nine cases dull resinous finger, in reed, were bought in at 5*l.* 10*s.* per cwt.

**ELATERIUM.**—Quiet and unchanged. A parcel of 239 oz. was bought in at 3*s.* per oz. nominally.

**ERGOT OF RYE.**—Steady. A parcel of 10 casks good bright sound Spanish was partly sold, at 1*s.* 4*d.* per lb. to-day, the remainder being bought in at 1*s.* 6*d.* nominally. *Russian*, 1*s.* 2½*d.* to 1*s.* 3*d.*

**GAMBIER** has advanced on the spot, and still more for forward delivery. Whole bales on the spot are quiet at 27*s.* 3*d.*, and for forward business has been done, January-February at 28*s.*; February up to April, 27*s.* 6*d.*

**GALLS.**—A sale of 120 piculs *Japanese* galls now due is reported the other day at the rate of 60*s.* per cwt., c.i.f. terms, which shows a decline in value. On the spot we hear of no business. *Turkey* galls remain quiet, prices unchanged. At auction to-day 10 bags dull *Morea* galls sold without reserve at 20*s.* per cwt.

**GAMBOGE** appears in very good demand, and all that was offered to-day, met with very fair competition. Good bright selected sold at 13*l.*; fair pipe partly run and drossy, but good bright fracture, at 12*l.*, not quite so good at 11*l.* 2*s.* 6*d.*, and very small mixed drossy and blocky at 10*l.* 5*s.* to 10*l.* 10*s.*

**GENTIAN ROOT.**—Good bright quality is obtainable at 16*s.* per cwt. for a parcel of 24 bags partly dark French root; 15*s.* 6*d.* would be accepted, but an offer of 15*s.* was refused to-day.

**GLYCERINE.**—Firm at 70*l.* for S.G. 1-260 from the makers, and a shade below that price in the second-hand. It is thought that there will be a further advance shortly.

**GUM AMMONIACUM.**—Two cases small pale seedy grain, deficient in flavour, 25*s.* per cwt. was paid.

**GUM ARABIC.**—Several packages of fine *Cape* gum were offered to-day, and part of them sold with some competition, good small pale drop, 74*s.* to 77*s.* 6*d.* per cwt. Of *Mogadore* gum, a parcel of good clean white drop was bought in at 9*l.* 10*s.* per cwt.; and very fine white frosty gum at 14*l.* per cwt. Of 20 cases good bright gum from the *West Coast of Africa*, partly Senegal character, a few cases sold at 80*s.* per cwt. Fine selected *Aden* gum is held at 95*s.* per cwt., and for small bright sittings 50*s.* per cwt. is the limit. The following is the present range of prices for the principal *East Indian* gums:—Amrad—Kurrachee, 45*s.* to 65*s.*; ditto, Cawnpore, 30*s.* to 44*s.*; Madras, 18*s.* to 40*s.*; Olibanum scented Bombay, 25*s.* to 45*s.*; Ghatti—fine selected, 70*s.* to 90*s.*; ditto, good, 35*s.* to 45*s.*; ditto, fair, 27*s.* to 31*s.*; ditto, common, 18*s.* to 25*s.*; Aden—selected sifted, 80*s.* to 90*s.*; ordinary unsifted, 30*s.* to 32*s.* 6*d.* per cwt.

**GUM ASAFOETIDA.**—A rather large quantity will be offered for sale at the next auctions.

**GUM BENZOIN.**—There is very little demand, and the market can only be described as flat. At the auctions nearly the whole of the offerings was bought in. *Sumatra* seconds, fine pale almondy centres, fair corners, 9*l.*; ditto not quite so good, 8*l.* to 8*l.* 10*s.*; ordinary centres and false packed corners, 5*l.* 10*s.* A parcel of ordinary dark third *Penang* sold at 45*s.* per cwt., without reserve. *Palembang* rosin bought in at 25*s.* per cwt.

**GUM ELEMI.**—No fine elemi gum was offered to-day, but nine packages imported via Singapore, were shown and bought in, fair but dirty, mixed at 50*s.*, ordinary dark at 32*s.* 6*d.* to 37*s.* per cwt.

**GUM GUAIACUM.**—At to-day's auction one case fair bright block sold at 2*s.* 3*d.* per lb.

**GUM MYRRH** still tending towards lower prices; fair pale sorts sold without reserve at 74*s.* to 75*s.* For good selected *Aden* 6*l.* 15*s.* is the price asked.

**GUM TRAGACANTH.**—At last Friday's auction over 1,000 packages of Syrian gum were offered, but there was very little demand, and only 100 sold at practically unchanged rates. Common pickings and fourths from 20*s.* to 65*s.*; pale thick thirds, 80*s.* to 95*s.*; ordinary yellow seconds, 5*l.* 10*s.* to 6*l.* 10*s.*; for fine white Tragacanth 11*l.* is required, and good pale 10*l.* 10*s.*

**HONEY.**—Considerable quantities of Chilean honey continue to arrive, but the price keeps up well for all grades. 9 kegs good pale hard, shown to-day, are held at 46*s.* per cwt., and for another lot, rather soft to pale, 40*s.* was refused. 19 kegs rather grey and dirty mixed, imported from Hamburg, were also offered and taken out in the absence of any bids. Fifteen barrels from 5 to 6 cwt. each, rather yellow *Mexican* honey bought in at 40*s.* Fair brown liquid *Jamaica* sells at 36*s.*, and 7 cases of amber candied *Californian* sold without reserve at the same price.

**INSECT FLOWERS.**—Open flowers are reported dearer from Trieste, but otherwise there is no change.

**IODINE.**—There has been no official announcement of any move on the part of the syndicate, but there are some important indications that a climax is approaching. On Monday last a meeting of the whole of the iodide manufacturers in the convention was held at Cologne, and the statement was made to them by the Glasgow house who act on behalf of the iodine producers, that the negotiations regarding the renewal of the convention were practically complete, and that the announcement of the new price was a matter of a few days. We believe that at the meeting referred to the German members of the convention raised objection to the system adopted by their English *confrères* of selling their goods without charging any definite price for them, and we understand that this difference was satisfactorily arranged. It is now said that certain financiers want to couple the iodine and nitrate combinations together, and that, therefore, everything now depends upon the result of the negotiations for the nitrate convention. The latest Valparaiso mail news concerning that undertaking, dated January 31, is as follows:—"It has become known that the realisation of the schemed combination had encountered serious difficulties, and that negotiations had been temporarily suspended. But since then a feeling has arisen that in spite of the momentary adversities, the combination will be carried through sooner or later, and already negotiations have been re-opened to this effect."

**IRECACUANHA.**—Forty-five packages were offered at to-day's sale, but only 19 sold. There is no quotable alteration, but it was observed that the competition was somewhat less active than at the last sales. Rather wiry to good fleshy sound sold at 7*s.* 5*d.* to 7*s.* 8*d.* per lb.; damages, according to quality, at the same price.

**JALAP.**—None was offered to-day, but in sympathy with the reports from Hamburg and New York, our market has advanced about 2½*d.* since our last report. 1*s.* 1*d.* per lb. has been paid for good *Vera Cruz*, and it is said to-day that an offer of that price was refused, owners standing out for 1*s.* 2*d.* per lb.



**KAVA KAVA.**—A lot of bold palo root, imported from the United States, is held at 6d. per lb.

**MATICO.**—Several recent arrivals were offered to-day, and were all sold at rather cheap rates, from 3d. to 4d. for more or less damaged fair greenish mixed leaves and 2½d. for a parcel of grey and unsightly.

**MERCURIALS.**—The prices will probably all be raised to-morrow 1d. per lb., in sympathy with the advance in quicksilver. We do not hear that any official change was made to-day, however.

**MORPHIA** remains steady, but quiet at unchanged prices, *Coclea* is advancing, and is now held at 15s. to 15s. 6d., according to brand.

**MUSK.**—The market is exceedingly flat and depressed, and at to-day's auctions only one caddy was disposed of, viz., third pile *Tonquin* pods, thin blue skin, well trimmed but partly spurious, at 54s. per oz. First pile good dry pods, well trimmed, small to bold, were bought in at 90s., old-fashioned pods at 75s. to 80s., and wet unsightly third pile at 40s. per oz. nominally. For Chinese *Cabardine* 22s. 6d. per oz. is asked, and for 20 tins *Russian* ditto 24s. is said to be the limit, an offer of 22s. being refused. One bottle of "grain musk" sold at 1s. 6d. per oz.

**MUSK SEED.**—For 2 cases of good flavour 6d. per lb. is asked.

**NUX VOMICA.**—Firm and selling at full prices, good bold pale silky seed from Ceylon at 12s.; very small dull Bombay at 6s. (damages 5s.), and small palish silky ditto at 8s. to 8s. 9d. per cwt.

**OIL (CASTOR).**—The market here is dull and inanimate, and the quotation for fair *Calcutta* seconds is more or less nominal. At auction 3½d. was asked for yellow *Coconada*.

**OIL (COD-LIVER).**—It is said that the makers are not anxious to sell the new cod-liver oil, notwithstanding which there are offers of non-freezing oil as low as 58s., c.i.f. terms. Thirty barrels yellow Norwegian oil imported via Hamburg were offered to-day, and a bid of 45s. was refused.

**OIL (MUSTARD).**—Two cases of *Colman's* oil in small tins (quantity per case unknown), imported here in an American ship, were offered at 60s. for the lot, but no bids were made beyond 5s.

**OILS (ESSENTIAL).**—For 10 cases good congealed but very yellow *Star-anise* shown at the auctions 6s. 1½d. per lb. is wanted, and an offer of 6s. 1d. was refused. Another lot of non-congealed oil was held at 6s. 2d. per lb. *Citronella*: For a parcel of good oil in bottles shown to-day 1½d. per oz. would be taken, but other bidders stand out for ¾d. per oz. Ten cases *Camphor oil* were bought in at 7d. per lb., but there were no bids. Japanese *Peppermint* bought in at 4s. 9d. to 5s. per lb., and *Menthol*, bold but not very bright crystals, at 7s. 9d. to 8s. per lb. *Bergamot* still remains very dear, owing, perhaps, principally to the action of the combination which was formed some time ago among the producers in Reggio. The combination is said to dispose of sufficient funds to control the small existing stock of bergamot for some time to come. Oil of *Lemon* is reported about 4d. per lb. dearer from Italy, and at the same time Hamburg reports talk of lower prices.

**OPIUM.**—Our market remains exceedingly quiet, and there is practically no change in prices; fine soft shipping quoted up to 16s. nominally; second druggists' at 12s. Of *Persian opium* a few cases have changed hands at 13s. 9d. per lb. We hear that after all only 10 cases of the opium rejected by the Dutch Government are offering in Hamburg, and it is said that they have not yet been sold.

**ORANGE PEEL.**—For 4 cases fine bright gelatine an offer of 9d. was refused; 10d. to 1s. per lb. is the nominal quotation for this; dark ringlets bought in at 6d. to 8d. per lb.

**PATCHOULY LEAVES.**—Five bales offered as such were sold without reserve, subject to paying charges, at 1½d. per lb. The leaves were all broken, and of musty flavour.

**POTASH SALTS.**—*Chlorate of potash* remains steady, at 5d. per lb. on the spot, though perhaps a shade less might be accepted for some odd parcels, and 5½d. forward delivery. *Bichromate*, unchanged, at 4d. *Yellow prussiate*, in good demand, 9½d. for English and foreign. *Red prussiate*, 1s. 4½d. to 1s. 5d. would buy.

**PUREE.**—Three cases were shown to day; 6s. 6d. per lb. is the price.

**QUASSIA.**—The limit for good logs is 6l. per ton.

**QUICKSILVER.**—In the course of this week the principal importers sold between 1,500 and 2,000 bottles at the price of 9l. 5s., and then raised their quotation to 9l. 10s., at which it now stands. Second-hand holders are offering to-day at 9l. 6s. 6d. to 9l. 7s.

**QUININE.**—The market has been exceedingly quiet since our last report, and the only business we hear of was early in the week, when 4,000 oz. *Brunswick* brand sold at 1s. 1½d., cash terms, second-hand. To-day there are further sellers at 1s. 1½d., usual terms, but no buyers. At the auctions to-day a parcel of 1,799 bottles (from ¼ to 1 oz.) hydrochlorate of cinchonine, French make, sold at 1d. per oz.

**REVALENTA ARABICA.**—30 cases of Maclean & Sons' brand, packed in ½-lb. to 2 lb. tins, 12 lbs. per case, sold at 3s. per case.

**RHATANIA ROOT.**—Thirteen bales were partly disposed of to-day at 6d. per lb. for good bright red root.

**RHUBARB.**—A moderate quantity was offered at to-day's auctions, but most of it was held above the market rates, and only a small proportion changed hands at steady prices. *Shensi*, small to medium, ¾ pinky, ¼ dark fracture, round, 2s. 6d. refused; small flat ditto sold at 1s. 6d. per lb. Rather spongy flat pickings brought 1s. 4d. per lb., and small wormy 1s. 3d. per lb. Some very wormy dull root sold at 7½d. per lb. For good even pinky druggists' root 1s. 11d. was refused, the price being 2s. 6d. per lb.; fair coated medium to hold wormy root sold at 1s. 1d. per lb. without reserve. *High dried* medium to hold bright coat, even pinky fracture, brought 1s. 1d. per lb.; medium-sized round untrimmed dark coated, 8d. refused; small to medium flat wormy, half-pinky fracture, sold at 8d. per lb. subject to approval.

**SANDAL WOOD.**—Good logs from Ceylon quote at 70l. per ton.

**SARSAPARILLA.**—Several lots sold rather cheaply to-day. Grey *Jamaica*, sound, at 1s. 4d., damaged at from 1s. 3d. down to 11d. per lb.; damaged *Lima Jamaica* at 9d. to 10d. per lb.; *Guayaquil*, imported via Hamburg, also damaged, at 11d. per lb.; and 61 bales of *Guayaquil* character, from Vera Cruz, at 1s. 1d. to 1s. 3d. per lb. for sound, and 1s. to 1s. 1d. for damages.

**SENNA.**—About 250 bales were offered to-day, and nearly all sold at full prices. *Tinnevely*: Fair small yellowish mixed to greenish leaf, at 3½d. to 4½d.; dull, small, and medium yellowish, at 2d. to 3d.; ordinary specky and common, from 1½d. down to 1¼d. per lb. *Mecca*: Fair greenish mixed stalky, at 1d. to 1½d. per lb.

**SHELLAC.**—The market for futures has been weak and easier, but spot parcels are held at steady rates, with a fair trade in *Garnet*. At the auctions 377 cases were offered, but only 70 sold, fine second orange at a slight decline; good lemon colour, 90s. to 91s.; ordinary red seconds brought 73s. to 74s. per cwt. The following were the prices at to-day's call:—

			Mar.	Apr.	May	June	July
Orange TN, sellers	..	..	76/	75/6	73/6	77/	77/
" buyers	..	..	74/	74/6	75/6	76/	76/6
Garnet AC, sellers	..	..	76/	76/	76/	75/	74/5
" buyers	..	..	72/	72/	72/	72/	70/

Business was subsequently reported at 74s. 6d. for March, and 76s. for June.

**SODA SALTS** have nearly all advanced in consequence of the coal strikes in the North of England. *Ash* is quiet, at 1½d. *Bicarbonate*, at 6l. 7s. 6d. to 6l. 10s. *Caustic soda*, 70 per cent. white, on the spot, at 12l., and in Liverpool at 11l. 10s. *Crystals*: London, 60s., ex ship. *Soda nitrate*, however, is flat and easier, from 7l. 17s. 6d. for common qualities upwards.

**SPERMACETI.**—The prices are slightly advancing. American refined is now quoted at 1s. 0½d. per lb., English about 2d. more.

**SQUILLS.**—Dull of sale; good dry yellowish *Malta*, 1s. 1½d. per lb.



**STROPHANTHUS SEED.**—44 lbs. of genuine green seed, very small, sold at 6s. per lb.; and 40 lbs. wormy brown seed, from the African West Coast, at 1s. per lb.

**TAMARINDS.**—4 barrels very dark and unsightly West Indian held at 9s. per cwt.; for old black and dry Calcutta the same price was refused.

**TEA.**—The Congou market remains unchanged, trade being very quiet, but the general tone very fair. Tea for price fetches 4d. to 4½d., as it has stood now for many weeks past, while fair Kaisow and Moning sold at 4½d. to 4¾d. on Tuesday and Wednesday. Better grades of Moning are wanted, and getting very scarce as regards desirable teas, but there is no demand for fine Kaisow, and though the Panyongs, recently selling so cheaply at 9d. to 9½d., cannot now be matched, there is no quotation over 1s. for any Kaisow tea, Chingwo, Panyong, Soomoo, and Pecco Congou, the last-named selling from 10½d. to 11½d. for really choicest tea. Newmakes are a trifle easier, selling from 5½d. upwards, but fine honeysuckle sorts are getting very few and far between. Assams are firm for all grades, common broken tea fetching 6d. and leaf tea 7d., while good Pekoes from 11d. to 1s. 1d., with "pointy" liquors, are wanted. Broken Pekoes are sharing the firmness of all good liquoring kinds, and some of the fine quality Farmings, which sold at 1s. to 1s. 2d. a month or two ago, are now worth 2d. per lb. more money. Ceylons remain firm, very little leaf tea worth anything in liquor selling below 7½d. to 8d. Medium kinds from 10d. to 11d. show capital value and are most useful for 2s. canister, but finest teas are in very small supply.

**TONQUIN BEANS.**—One cask bold partly crystallised *Angostura* was bought in at 7s. 6d. per lb. An offer of 4s. for good black and slightly foxy mixed small *Para* was refused.

**VANILLA.**—A rather large quantity sold at irregular prices; long beans rather easier, but short ones dearer, especially for the better qualities. The following prices were paid:—Ordinary lean and rather brownish, 3½ to 7½ inch, 10s. to 14s. 6d.; common dry ditto, 4 to 8½, 9s. 6d. to 12s. 6d.; fair chocolate, slightly crystallised, 3½ to 6, 10s. to 12s. 6d.; good, 5 to 6½, 11s. 6d. to 13s. 6d.; 6½ to 8, 14s. 6d. to 19s.; fine, 8 to 9½, 21s. 6d. to 23s., one lot 28s.; good old cottony, 7 to 8, 14s.; fresh plump uncrystallised, 5½ to 7½, 13s. 6d. to 15s.; ditto, little crystals, 7½ to 8½, 15s. to 17s.; 8 to 8½, 18s. 6d. to 20s. per lb.

**WAX (BEES').**—In small supply, and a decided advance was obtained. *Jamaica* sold, with strong competition, as high as 7l. per cwt. for good yellow; brown, and red mixed, 5l. 15s. to 6l.; 8 cases dark and brown mixed *Madras* sold at 5l. 5s., and 18 cases pale average Calcutta at 7l. 5s.

#### CHEMICALS IN THE NORTH OF ENGLAND.

**THE** coal strike in the Midlands has entirely upset the market for heavy chemicals. In Lancashire some of the factories have had to cease operations for want of fuel, whilst others are working short time, and may have to close any day, unless the strike terminates.

**THE DOCK LABOURERS STRIKE** at Liverpool has also interfered greatly with shipments of chemicals of late, and consequently many orders which would have been placed with the Lancashire manufacturers have been sent to the Tyne. This has had the effect of creating a very excited market at Newcastle, and quite fancy prices are asked on 'Change for immediate deliveries. Tyneside manufacturers are making the most of the unexpected demand, and heavy shipments of caustic soda, ash, soda crystals, and bleaching-powder are being made to the United States, where the demand is far in excess of the supply, although their home producers are increasing their output and their imports of ash and caustic have increased by over 10 per cent. during the last two months. Owing to the heavy shipments during the past few days, freights on chemicals to New York from the Tyne have advanced about 50 per cent.

**BICARBONATE OF SODA** in 1-cwt. kegs, 6l. per ton f.o.b. Tyne.

**BLEACHING-POWDER** has advanced from 5l. 5s. to

5l. 17s. 6d. to 6l. per ton f.o.b. Tyne for softwood casks; hardwoods 2s. 6d. per ton extra; ex ship Thames, 6l. 10s. per ton.

**CAUSTIC SODA** has advanced from 10l. 10s. to 12l. per ton for 77 per cent., f.o.b. Tyne.

**CHLORATE OF POTASH**, same as last reported at 5d. per lb. f.o.b. Tyne.

**HYPHOSULPHITE OF SODA** unchanged at 4l. 5s. per ton in casks, and 4l. 15s. per ton in 1-cwt. kegs, f.o.b. Tyne.

**SODA ASH.**—American advices state that it is almost impossible to secure supplies of soda ash for immediate delivery, and that the home producers are fully sold up to July and August. Spot parcels are selling at a price equal to 2d. per degree f.o.b. Liverpool or Tyne, and even higher prices are said to have been paid. Lancashire makers have withdrawn all their quotations, not being sellers, and prices there are merely nominal. Soda ash, 48 to 52 per cent. is quoted from 1½ to 1½ per cent. per degree f.o.b. Tyne.

**SODA CRYSTALS**, 49s. 6d. to 50s. f.o.b. Tyne, 56s. to 56s. 6d. ex ship Thames.

#### THE DUTCH MARKET.

AMSTERDAM, March 18.

**CINCHONA.**—The sales in Amsterdam on March 27 will consist of 4,916 bales and 182 cases, or about 408 tons. *Java bark*, divided as follows:—From Government plantations, 380 bales, 49 cases, or about 35 tons; ditto from private plantations, 4,536 bales, 133 cases, or about 373 tons. *Druggists' bark*: *Succirubra* quills, 147 cases; broken quills and chips, 487 bales; root, 207 bales; *Schuhkrafft* quills, 3 bales, 20 cases; broken quills and chips, 28 bales; *Lancifolia* broken quills and chips, 2 bales, 3 cases; root, 7 bales. *Manufacturing bark*: *Officinalis* quills, 3 cases; broken quills and chips, 11 bales; root, 4 bales; *Ledgeriana* quills, 1 case; broken quills and chips, 3,214 bales; root, 801 bales; *Hybrid* quills: broken quills and chips, 130 bales; root, 20 bales; *Lancifolia* quills, 2 bales, 8 cases. Total, 4,916 bales, 182 cases. The manufacturing barks contain about 14 tons sulphate of quinine, or an average of 4.25 per cent. About 23.5 tons contain 1.2 per cent. sulphate of quinine; 44, 2.3; 103.5, 3.4; 76, 4.5; 41.5, 5.6; 32, 6.7; 10, 7.8; 6, 8.9.

#### THE GERMAN MARKETS.

HAMBURG, March 18.

**ALTHOUGH** our drug market has not been particularly active, nevertheless the amount of business done during the past fortnight has been fairly large, and altogether a better tone prevails. As we had predicted in our last, camphor has again gone up, whilst gum acacia and opium have experienced a fall. The decline in the price of

**OPIUM**, however, was not so great as was anticipated, and so uncertain is the market that it is difficult to foresee what direction the next change will take. 26m. are now asked for Ihmsen's and Guéve's brands.

**ACID (TARTARIC).**—Contrary to all expectation, this has taken a turn in an upward direction, and is now firmly held at 260m.

**BORAX.**—Very steady at 62m. to 64m.

**CAMPHOR.**—520m. to 530m. It is believed that for the present, at least, these prices will undergo no change, the demand for the article having fallen off somewhat.

**CUBEBS.**—Quiet, but firm, at 950m.

**DYEWOODS.**—A brisk trade has been done in these lately at the following rates per 100 lbs.:—*Jamaica* (blue), 6.60m. to 7.00m.; *Capo Haiti*, 6.50m.; *Monte Christo*, 7.25m.; and *Lagos Campeachy*, 11.50m. to 14.00m.; *Cuba* (yellow), 6m. to 7.25m.; *Tampico*, 6m.; *Corinto*, 5.75m.; *Maracaibo*, 4m. to 4.25m.

**ERGOT OF RYE.**—No improvement, and quotations remain unaltered at 250m.



**GLYCERINE.**—In consequence of the combination amongst the various manufacturers and a threatened further rise in the price of the crude article, large sales have taken place lately. The following are a few of the "Convention" prices:—Brown, 30 per cent., s.g. 1.250, 119m.; single distilled, 1.250, 130m.; double distilled, 1.250, 134m.

**GUMS (ACACIA).**—Good sorts offer at 212m. to 535m.; picked, at 760m. *Senegal*, 250m.

**OILS (ESSENTIAL).**—*Cassia* unchanged at 835m. to 875m. Both *Bergamotte* and *Lemon* have declined a little; 20m. is now asked for the former, and 7.50m. for the latter. *Peppermint* (H.G.H.), 10½m. per bot. *Menthol* quiet, but firm, at 16½m.

**QUININE.**—Zimmer & Jobst's makes are quoted at 49m. Other brands at 45m.

**SEEDS.**—*Colchicum* are scarce, and 500m. has just been paid for a few parcels. *Star-anise* are in good supply at 210m.

**SHELLAC.**—A steady business is being done at 160m to 225m.

**WAX (JAPAN)** arrives freely, and lower quotations prevail; now 87½m.

### THE PRODUCTION OF CALIFORNIAN HONEY.

A REVIEW of the 1889 honey crop just received from San Francisco states that last year the crop has not been as large as in 1888, but nevertheless sufficient quantities have been produced so that no scarcity has been felt during the season, and even now there is sufficient honey on hand, as the demand for export has not been active. It is impossible to name exactly the quantity of extracted and comb honey produced in California, but the crop in California for 1889 may be estimated at 2,000,000 lbs. of extracted honey and 200,000 lbs. comb honey. In 1888 California produced 3,500,000 lbs.; 1887, 1,200,000 lbs.; 1886, 5,000,000 lbs.; 1885, 1,250,000 lbs.; 1884, 9,000,000 lbs., or an average of nearly 4,000,000 lbs. It is difficult to approach, again, the amount produced in 1884, for the reason that a great deal of land is now cultivated, so that the bee-stands had to be removed farther back into the mountains, and some apiarists have given up this industry, as they have found other occupations more profitable. The prospect for the coming season is so far a very good one. There has been an abundance of rain, and if there should be some rains again in March or April, to keep the different kinds of trees and flowers in blossom, there will probably be a larger yield of honey than there has been since 1884. But a great deal depends upon the weather during the honey-producing months, which are, in particular, May, June, and July.

Prices have been too high last year to permit a large export business. In consequence shipments to Europe have only been small. Overland, mostly to Atlantic ports, and partly from Southern California, 900,000 lbs. extracted honey, and 100,000 lbs. comb honey, have been shipped, against 1,000,000 lbs. in 1888, 950,000 lbs. in 1887, 2,000,000 lbs. in 1886, and 1,270,000 lbs. in 1885. Shipments by sail to Europe from San Francisco have been, from January 1 to June 1, 1889, 1,745 cases of extracted honey. These shipments of course belong to the crop of 1888, while in the remaining seven months of 1889, 50 cases went to London, 661 to Hamburg, 801 to Liverpool, making a total of only 1,512 cases to Europe of the crop of 1889 by sailing-vessel. To France 360 cases were shipped overland, but half of this was lost on the Atlantic. Comparing these shipments to Europe with former years, the supplies in Europe must be very small. The following were the sailer shipments of former years, mostly to England and Germany:—1888, 5,000 cases; 1887, 2,000; 1886, 7,500; 1885, 8,800; 1884, 15,000; 1883, 6,700; 1882, 3,600; 1881, 9,500; 1880, 9,400; or an average of 7,500 cases per year.

To New York, 500 cases have been shipped by sailing-vessel in the past year, and to Australia, Sandwich Islands, British Columbia, and other foreign countries, 900 cases, mostly by steamer.

Since the beginning of this year 376 cases have been shipped, or are now loading, for Liverpool, and 107 cases for Hamburg. This will probably constitute all the shipments

to Europe of the crop of 1889, because there are, at the present time, no other vessels ready to take honey for Europe, and, on the other hand, there is not much choice honey left available for the export trade. In the first month of 1890 we have received 950 cases, or 110,000 lbs., of honey in San Francisco.

The quality of the honey has been choice, but only little white honey has been produced, and, in consequence, a good many orders for this quality could not be filled.

A great deal of honey has been put up in old cans and old cases, which should be avoided. European buyers expect to receive their honey in new cans and new strong cases, for the reason that often old cans and old cases show considerable leakage, and if apiarists are not more careful in the selection of the packages they will do a great deal of harm to the honey industry of California, which, with a large honey crop, absolutely needs the consumption in Europe.

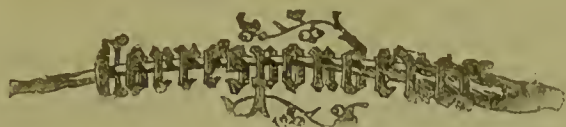
### THE OPIUM CROP IN THE TURKISH EMPIRE.

THE following statistics give the production of opium in the whole of the Turkish Empire in Asia and Europe during the last twenty-six years, together with the highest and the lowest prices of opium (in Turkish and British currency) on the Smyrna market during the seasons in question. The figures show that since 1864 there have been 128,400 baskets of opium produced in the Turkish Empire, the Persian production not being included in the returns. Deducting from this total the stock of opium now believed to be in existence, viz., 4,800 baskets (1,400 baskets in Smyrna, 700 in Constantinople, 1,700 in London, and 1,000 in America, &c.), we have an average annual consumption, during the last twenty-six years, of about 4,750 baskets of opium.

The comparatively large crops obtained since 1868 are explained by the fact that until that season the cultivation of the poppy was restricted to four or five provinces in Anatolia (Konieh, Karabissar, Sourahan, Bogaditch, and the neighbourhood of Smyrna), but after 1869, when the failure of the crop had caused an immense advance in the price of the drug, the cultivation was extended to other parts of the Empire, over the whole of Northern Anatolia, and in Roumelia. Since that period the peasants became accustomed to the cultivation of the poppy, and the prices thenceforth became dependent only upon the greater or smaller yield of the crop. It is said that the future of the opium industry in Turkey is becoming more uncertain. The extension of the railway system especially operates against the continuation of opium cultivation, because it encourages the growing of cereals, which require less attention, are less easily destroyed by inclement weather, and for which the demand is not so much influenced by speculation:—

Year	Yield of Crop	The Smyrna Prices during the Season			
		Highest		Lowest	
	Baskets	Piast.	s. d.	Piast.	s. d.
1864 .. ..	3,400	140	16 6	111	13 0
1865 .. ..	4,350	130	15 2	94	11 0
1866 .. ..	1,350	160	18 8	122	14
1867 .. ..	3,000	170	19 10	120	14
1868 .. ..	1,600	390	45 6	146	17
1869 .. ..	3,500	295	34 5	180	21
1870 .. ..	4,300	270	31 6	130	15
1871 .. ..	8,500	200	23 4	130	15
1872 .. ..	4,400	220	25 8	170	19 1
1873 .. ..	3,150	260	30 4	165	19
1874 .. ..	2,430	274	32 0	130	15
1875 .. ..	6,300	145	16 11	122	14
1876 .. ..	3,250	190	21 6	137	15
1877 .. ..	9,450	138	15 8	122	13 10
1878 .. ..	6,050	145	16 5	120	13 7
1879 .. ..	4,300	250	28 4	135	15 3
1880 .. ..	2,100	250	28 4	135	15 3
1881 .. ..	11,000	135	15 3	103	11 8
1882 .. ..	4,600	135	15 3	90	10 2
1883 .. ..	6,970	115	12 10	85	9 6
1884 .. ..	5,400	115	12 10	90	10 0
1885 .. ..	7,400	95	10 7	80	8 11
1886 .. ..	7,600	164	18 0	63	6 11
1887 .. ..	1,800	180	19 10	71	7 10
1888 .. ..	7,300	100	11 0	62	6 10
1889 .. ..	5,000	—	—	—	—





### Memoranda for Correspondents.

*Always send your proper name and address: we do not publish them unless you wish: if you do not, please use a distinctive nom-de-plume.*

*Write on one side of the paper only; and devote a separate piece of paper to each query if you ask more than one, or if you are writing about other matters at the same time.*

*If you send us newspapers, please mark what you wish us to read.*

*Ask us anything of pharmaceutical interest: we shall do our best to reply.*

*Before writing for formulae consult the last volume, if you have it.*

*Letters, queries, &c. will be attended to in the order received.*

### The Legitimate Demands of Chemists.

SIR,—The discontented section in the Pharmaceutical Society and in the trade will feel thankful that in *THE CHEMIST AND DRUGGIST* they have a powerful organ ever ready to support and interest itself in any movement calculated to benefit the trade, and it is our pleasant duty to acknowledge the candour and fairness with which, in your leading article last week, you have treated this question upon the whole.

But there are one or two points on which a few words will perhaps not be out of place; and first, we notice that you express the hope that "at least a sufficient number of serious candidates ready to serve have been secured, and will be nominated," and that "unless this is the case our letters have no meaning." In this sentence you have put your finger upon the *crux* of the whole question. The difficulty herein expressed was the origin and occasion of this conspiracy, or insurrectionary movement, if you would call it so, and with that object in view it has been carried on ever since. Letters without number have been written to prominent and suitable gentlemen, asking them to place their services at the disposal of the reform and progressive party, and in the large majority of cases the replies have been something of this nature—"Owing to the difficult and unprofitable nature of the business, demanding incessant personal services, they much regret their inability to come forward for the Council; but at the same time they rejoice to hear that at last something was going to be done, and would give the movement their most hearty and cordial assistance." Encouraged, and yet at the same time discouraged, by these messages, we have persevered until now, and, although we cannot promise fourteen candidates, as we had hoped, yet we trust to run half that number, and, if possible, secure their return.

In defending ourselves on this head, we would point out that it is owing to the unwise and exclusive policy of past Councils that this difficulty besets us when we attempt to reform our administrative body, and this becomes apparent when we consider the circumstances that obtain in this respect. Only the two classes of pharmaceutical chemist and chemist and druggist members are, under the present Act, eligible as councillors, associates (in business or otherwise) being excluded from the honour. Now we take it that young men who qualify for the Major are more generally the sons of the aristocratic or opulent members of the community; these, when they pass, frequently begin to fancy themselves a little, turn up their noses at their less fortunate brethren, confine their attention to scientific pursuits, and lose touch and sympathy with the great majority, who have to depend upon trade for an (often miserably inadequate) living. So we cannot expect many candidates from that class. The chemist and druggist members are now only 608, and being the seniors of pharmacy, prefer, as a rule, to leave things as they are, and allow reforms to be carried out by younger and more energetic men.

When these circumstances are fairly considered, we hardly think that the President is justified in taunting his opponents with their inability to get men to supplant himself and his colleagues, inasmuch as had they done in the past what

even they themselves consider necessary at the present (viz., let the associates in business participate), we are fain to believe this difficulty would not have arisen.

In regard to your criticism upon the ultimate object of our agitation, it is gratifying to find that the difference between us is one more of degree than of principle. You do not think our schemes are realisable at once; neither do we. But surely it is well to begin striving for something definite. It is advisable to keep the goal-post well in view, that we may not fall out by the way, and thus lose the prize. It may be that combination and co-operation in the Society is not very feasible; but we think that the principle is one that has gained ground enormously of late years, and we quite fail to see its inapplicability to our present situation and circumstances. If each member will agree to give up his own interests for the general good we are bound to succeed. We are also bold to affirm that there can be no good reason why, when the Society is strengthened and consolidated with a popular and respected Council, elected on popular principles, that we shall be unable to obtain from Parliament a better and more equitable Act in our interests than we have hitherto ever tried to obtain with a weak and divided house.

I am, sir, yours faithfully,

ALFRED COLEMAN.

Cardiff.

SIR,—I gather from the leader in your last issue—wise and kindly intentioned as it was—that you look upon our enterprise in the above direction as somewhat hopeless and quixotic. But it appears to us as the only alternative to the form of protest which has been increasingly adopted of late, *i.e.*, quietly leaving the Society. Considerations of economy and personal ease plead strongly for the latter course, yet it jars a little on the consciences of men who feel they owe some effort to the common welfare. An alteration in policy without a change in the *personnel* of the Council would be most desirable, but recent events do not tend to show that it is possible. The President and his following have rather taken the line of unalterable determination—to throw the cargo overboard rather than shift the helm. Such unheeding resolution of the old Bourbon type seems to show that Mr. Carteighe is bent on outvieing the leader once described as

Resolved to ruin or to rule the State,

by proving, on the State pharmaceutical, that he can do both.

The present condition of the trade might well form the text for a cynical essay on "The Disabling Effect of Education." We are a body, 13,000 or 14,000 strong, of mainly reputable citizens, some of us fortunate enough to attain to magisterial and municipal dignities. Yet we are more helpless under fiscal imposition than the matchsellers, less fortunate in securing the just reward of our labours than the poor dockers.

The wisdom of our fellow-countrymen demands some qualification from, say, a town porter; and accords him at the same time a legal monopoly of his calling. Greater qualifications are required of the chemist, but the idea of trade protection in return is simply scoffed at. If John Bull was ever logical one would take the trouble to ask, Why is this?

But accepting the position that we rank in strict equality with other citizens, without favour or privilege, why should we be worse treated than others? Other crafts and callings bring their grievances before the House of Commons, and appeal to the tribunal of public opinion; but we are merely the foothall of departmental officials.

The President says he was informed that any amendment of the Patent Medicine Stamp Act would be accompanied by an imposition of the tax in another form, since the same amount of revenue must still be drawn from this source. In the name of justice, why? For nearly two generations the whole course of our fiscal legislation has been in the direction of relieving trade from the clog of taxation. When a part of the tea duty was taken off was the grocer informed that a fresh duty must be levied upon soap or sugar to make up the deficiency? Is it fitting that medicines, which are sometimes taken from motives of necessity, should bear a fiscal burden which is not inexorably fixed upon an undeniable luxury like tobacco? We, who are denied the



benefits of protection, surely ought not to be excluded from the blessings of free trade. The other hearings of the patent medicine-stamp question I hope to discuss at some future time. The urgent duty of the present is that all who are entitled to vote should recognise the grave responsibility which lies upon the due exercise of their electoral powers. Let me implore my few fellow-members to emerge from "that stupidity against which the gods fight in vain," and to give an articulate answer to the question which will so shortly be put to them: whether they approve of the policy of the present Council, or desire that the care of trade interests should be restored to its proper place in the Society's programme. Yours very obediently,

Market Square, Dover, March 17.

J. F. BROWN.

#### Phosphorus Pasto.

SIR,—In THE CHEMIST AND DRUGGIST of February 22 you give a formula for phosphorus paste, which, although good, requires some manipulation. I think you will find the following more simple and applicable to all quantities:—Phosphor, 3j.; carb. bisulph., q.s.; grease, 2 lbs.; sugar, 1 lb.; meal, 1½ lb. Dissolve the phosphor in q.s. of carb. bisulph., about equal volumes; mix this solution with the grease, add the sugar and meal, colour as required. This formula is a perfectly uniform composition. Yours faithfully,

Nice.

T. VINCE.

#### Tincture of Kino.

SIR,—The difficulty of keeping this tincture in good condition has induced me for some years past to make it extemporaneously. I had at one time a number of prescriptions from a local man, who has since left the town, and no one prescribes it at present, so that I rarely have to use it. It is so easily made that no trouble is experienced.

Yours truly,

HEDER.

N.B.—The parcel of gum I have still in use has probably been in stock over twenty years.

SIR,—Tr. kino, made by myself according to B.P. formula, kept fluid for some twelve months, then gradually thickened, and finally gelatinised.

241 Tooley Street, S.E.

Yours obediently,

EDWARD BARNES.

#### Patent Medicines.

*Verax* (6/48) writes to say that he agrees with Mr. Carteighe that the abolition of the medicine stamp would bring into the field a host of 1d. drugs on cards, which would be pushed on to grocers by unprincipled chemists. He recommends the advocates of abolition to pause and choose the worst of two evils.

*Ex A. P. S.* (7/59) would like to see patent-medicine licences granted by the Excise to chemists on the register only, in order to check the facilities for obtaining slow poison which now exist. The sale of poisons in any form, he thinks, belongs to the chemist, and should, as a matter of fairness, as well as safety, be kept in its legitimate channel.

#### One Trade, One Price.

SIR,—The remedy is this, and for a long time I have cogitated over it. I want every honourable employer, manager, assistant, and apprentice in England, Wales, Scotland, and Ireland to send me a post-card agreeing with my determination to eternally crush out store-trading in drugs, poisons, and prescriptions. I propose to organise a society which shall be called the "Chemists' Union," framed on the following articles:—

(1) Every chemist in business to declare that after a certain date he will not sell any proprietary article or patent medicine whereon the price is attached by the maker, for less than the price fixed under a penalty.

(2) That he will, after the said date, charge all prescrip-

tions at the price named in a book, to be called the "Chemists' Union Price-list."

(3) That he will likewise charge all drugs, chemicals, accessories, &c., at the price named in the "Chemists' Union Price-list."

(4) That every assistant, qualified or unqualified, shall, on the date named, leave his situation, whether as manager or otherwise, unless his employer's name is on the Chemists' Union register.

(5) That no apprentice shall, after that date, engage himself to an employer whose name is not on the Chemists' Union register.

(6) That no one whose name is on the Chemists' Union register, engaged in another's business, whether as apprentice, assistant, manager, or otherwise, shall, after the date named, start in business on his own account and break these covenants under a penalty of 2,000l.

(7) That every person named on the Chemists' Union register shall, after the date named, refuse to serve, or in any way assist, in any store, chemist's shop, or place of business, which is not on the list, whether gratuitously or at a salary.

(8) That these articles of agreement hold good for twenty-one years, and a penalty of 2,000l. be recoverable from any person named on the Chemists' Union register, where any one of these articles of agreement is broken.

(9) That after the date named no employer on the Chemists' Union register shall engage any assistant, apprentice, or manager, to act in his business, whose name is not registered also.

I ask everyone to think this over. Assistants in cutting stores through the United Kingdom, it is for you and your children, and your children's children. What are you young men going to do? You cannot find an opening even if your money is ready; you are discontented in leading a low slavish life in a drug store; your salaries are abominable, not half what they ought to be, and you are enriching daily your worst enemies. If you apply to an honourable old firm of pharmaceutical chemists you receive the usual reply, "Our trade is so cut up we cannot afford more," and so, after your expenses and worry to pass your examinations, you find it difficult to obtain 50l. a year. It is for you I plead, and by you alone can we, as employers, obtain a remedy. All your masters who refuse this agreement let them do their work themselves and die in their boots over it. Be men, and strike work on the date agreed upon, there and then. Remember, this one act of yours will make a panic, unless they sign it, such a one as never was known. Every honourable employer, manager, assistant, or apprentice send me a post-card; write on it "I agree," with full Christian and surname, define occupation, and employer's name; if out of situation say "Unemployed." I charge you, one and all, not to let your cutting employers humbug you with promises; post the cards yourselves to me, and say nothing about it to them. See that this letter comes before every assistant and apprentice in your town, in case he has not seen THE CHEMIST AND DRUGGIST. Call on one another, friend or foe; guard the apprentices from flinching. I know all honourable, just, and charitable employers will send a post-card, "I agree," cheerfully. I could not possibly carry on my business alone, and how can others do it? We are entirely in our assistants' power over this matter, and we rely on them to stamp out the cutting chemist and drug-store man. I am the only one in this town who stands out for prices, and have done so for over five years, and there is never a day but we sell patents and dispense at full prices. A short time ago a customer deliberately told me I had robbed her because I would not charge her 2s. 1d. for a 2s. 9d. patent, remarking that was the price at both the chemists' shops on the other side of the street. I refused to give her the change. If any of Burroughs & Wellcome's are ordered on a prescription, it is the same "Kepler" at 1s. 10d., drugs and all else at about 5 to 10 per cent. profit, and yet here am I getting 1s. 6d. for every 6 and 8 oz. mixture, where both of the others are cutting each other up at 10d. and 1s. I want to get all post-cards in by May, then I will report in our representative organ (THE CHEMIST AND DRUGGIST) numbers received, and, if I am warranted by a majority, I will proceed to enlist the co-operation of some few leading London and provincial chemists to meet me and frame the "Chemists' Union Price-book," a copy of which, with a copy



of the Chemists' Union register, will be sent to every name enlisted. Also to establish a fund in case temporary relief is required.

After this measure is embodied I will get you protection from proprietors and wholesale druggists, to stop all supplies to those who are not on the Chemists' Union register. On behalf of employers, I entreat all assistants and apprentices not to hesitate, but to become the men of the future; we look to them to restore our humiliated position. I shall not work for you again if you discard this effort. Some of your cutting employers will detest this, but their voices will be stifled; all I want is the name of everyone engaged in slaving for the cursed rabble.

Waterloo Pharmacy,  
Stroud, Gloucestershire.

R. S. FARRER.

### DISPENSING NOTES.

*The opinions of practical readers are invited on subjects discussed under this heading.*

#### Mist. Bismuth. Sedativa (Guy's Hospital Pharmacopœia).

SIR,—Under the heading of Dispensing Notes, in your last issue, Mr. H. S. F. Brown gives a formula for mistura bismuthi sedativa which is incorrect, as a most important ingredient, viz., liq. morphinæ hydrochlor., is omitted. The correct formula is as follows:—

Bismuthi subnit.	..	..	..	gr. x.
Sodii bicarbonat.	..	..	..	gr. x.
Pulv. tragac. co.	..	..	..	gr. x.
Liq. morph. hydroch.	..	..	..	℥ x.
Aquæ ad	..	..	..	℥ j.

M. Ft. mist.

If Mr. Brown makes the bismuth subnitrate, sodium bicarbonate, and compound tragacanth powder into a thin paste with water, and allows this mixture to stand for two hours in a mortar, then adds the liquor morphinæ hydrochlor., and, when the effervescence has completely stopped, adds the potass. iodid., previously dissolved in a fluid ounce of water, and the tincture of belladonna, the formation of the oxyiodide of bismuth will not take place for some days. If the medicine from the prescription given were taken regularly, I don't think the change would be noticed by the patient.

Yours truly,

Guy's Hospital, March 15.

A. A. BONES.

### MISCELLANEOUS INQUIRIES.

*A large number of correspondents ask us for formulæ and other information already published in this journal. It is not fair to more careful readers that we should frequently repeat such information, and so long as the back numbers containing the formulæ or replies required are in print we must decline to do so. Back numbers of our weekly issue can be obtained from the publisher at 4d. each.*

*Correspondents who have made inquiries regarding the following subjects will find the information in the numbers indicated.*

7/51. *Science*.—Books on the Microscope.—January 4, page 27.

9/65. *Ovis*.—Fluke in Sheep.—May 26, 1888, page 691.

90/13. *Wilts*.—Friar's Balsam (old formula).—April 6, 1889, page 495. [Is the tincture offered not methylated? The sale of such is illegal.]

4/23. *C. B. Vance*.—Leaves may be Skelotonised by immersion for several weeks in a weak solution of chlorinated lime, which should be changed occasionally. Every time the solution is changed the leaves should be washed with plain water, and the softened parts removed with a soft brush.

1/32. *J. P. (Palermo)*.—Liq. Santal. Flav. Co.—The following is a formula which we have already published:—

Ol. santal flav...	..	..	..	℥ 200
Ol. cubebæ	..	..	..	℥ 100
Ol. copaibæ	..	..	..	℥ 30
Ol. pimentæ	..	..	..	℥ 5
Ol. cassiæ	..	..	..	℥ 5
Tinct. buchu	..	..	..	x.
Inf. buch. conc. (1 to 7)	..	..	..	℥ x.
Aquæ	..	..	..	℥ 3v.
Sp. vini rect.	..	..	..	℥ 3xij.
Liq. potassæ	..	..	..	℥ 3x.
Pulv. lap. pumic.	..	..	..	℥ 3ij.

Heat the liq. potass. to boiling-point, and pour into a bottle along with the oils. Allow to stand for two days, then add the water; stand for half an hour; lastly add the other liquids. Shake well together, add the pumice-stone, allow to stand for three days, then filter.

1/48. *New Zealand*.—Arsenic is superior to strychnine for poisoning grain which is to be used for killing birds. When the birds discover, however, that the grain is harmful, they avoid it, even although it is tasteless.

1/53. *Bunsen*.—By "orbinum" in the old varnish recipe we should think olibanum was meant.

2/13. *Maridini*.—(1) *Condurango* used on the Continent principally in the form of decoction, but fluid extract and tincture are also employed, and a wine is popular. The decoction is made by macerating the bark in twenty times its weight of water for twelve hours, and boiling down to one-half. Dose, a tablespoonful. (2) *Pleurisy Root* (*Aselepias tuberosa*) is in the United States Pharmacopœia, but there is no official preparation of it. A proof-spirit tincture (1 in 10) is the most serviceable preparation. Dose, 5 to 40 minims. (3) *Menispermum Canadense* (*Canadian Moonseed* or *Yellow Parilla*). The mode of preparation and dose of tincture are the same as the preceding.

4/63. *A. A.*—For Straining in Ewes:—

Ext. ergotæ liq...	..	..	..	℥ v.
Tinct. opii	..	..	..	℥ j.
Inf. gent. ad	..	..	..	℥ j.

M. Ft. dosi. Rep. si opus sit in hora quat.

23/29. *P. S.* asks what would be the method of applying ol. lini as recommended in the DIARY for destroying Lice on Cattle? The directions used by veterinary surgeons would be "The lotion." They do not restrict the term to aqueous or spirituous preparations. To be applied with a hard brush (dandy), beginning at the face and thoroughly soaking the animal. "P. S." also asks what should be the strength to make an ointment from oil of stavesacre to apply to children's heads? Take ℥j. of the oil, ℥j. of wax, and ℥j. benzoated lard; but better use the B.P. ointment.

5/11. *J. W.*—There is a Chloride of Bromine which is a red-brown liquid, but is only stable at  $-10^{\circ}$  C. In contact with water it forms a solid hydrate having 10 molecules of water of crystallisation. We do not know of any American preparation which goes by that name, and which is "a liquid given in two-drop doses, and used also as a lotion for ulcers, &c." Anyone who knows of such a preparation will please communicate with us.

5/6. *August*.—You can rely upon Hoblyn's Dictionary.

6/27. *Carlos*.—Crude pyroligneous acid is used for imparting a smoky flavour to cured ham. It is sold as essence of smoke.

9/25. *J. H. S.*—Evanescent Ink.—Solution of iodine writes brownish-black on ordinary note-paper, and the writing disappears in a few days.



6/66. *A. W.*—Bootmakers use oxalic acid and French chalk for whitening the soles of boots. A few grains of acid are put upon the sole with a little saliva, and it is rubbed over the surface with a piece of cork. After a few seconds it is wiped off, and a little of the chalk is sprinkled upon and spread over the surface.

6/37. *T. A. O. H.*—Gout and Rheumatic Mixture; to retail in 2-oz. bottles at 1s. 1½d.:—

Tinctura colchici seminum .. ..	3iss.
Tinctura cimicifugæ .. ..	3iij.
Tinctura chloroformi comp. .. ..	3j.
Tinet. gentiane comp. ad .. ..	3x.

M.

Dose: A teaspoonful in half a glass of water forenoon, afternoon, and at bedtime.

7/1. *Benzoni.*—Shenstone's "Manual of Glass-blowing," published by Rivingtons, is the only book which will afford you the instruction you desire in regard to chemical apparatus. Gent & Co., Leicester, publish a pamphlet on electrical apparatus. Consult Ganot's "Physics" for the rest.

5/64. *Alpha (Porto).*—A chapter is devoted to Compressed Tablets in Remington's "Practice of Pharmacy," also in "The Art of Pharmacy" (THE CHEMISTS' AND DRUGGISTS' DIARY, 1887). The latter is out of print. You will find advertisements of tablet machines in our DIARY for the current year. In the case of salts, such as potassium chlorate and sodium carbonate, there is nothing added, the tablets being formed entirely by pressure.

7/9. *Thistle.*—(1) See our issue of May 5, 1888, page 602. (2) To recover morphia from bad hypodermic solution follow the directions given in our issue of March 23, 1889, page 415.

10/9. *Taffy.*—You had better ascertain first whether the works referred to are willing to supply you from their dynamo, and then apply to a firm of electric apparatus dealers for a quotation for an installation. See advertisements in DIARY, &c.

8/23. *Rara Avis.*—See our issue of November 2, page 625.

8/43. *Eucalyptus.*—Soap plaster is a good thing for treating hardened skin on the soles of the feet.

8/69. *Anised.*—Cattle Spice:—Fenugreek seed, 500 parts; juniper berries, 100; fennel seed, 80; linseed, 150; bicarbonate of soda, 100; gentian, 100; ginger, 100; common salt, 50; sulphate of soda, 100; asafoetida, 5 parts. Mix the whole, after powdering, and sift. A tablespoonful is the dose. If you wish to make into a food, you would find a mixture of ground locust bean, linseed cake, and cotton-seed cake to be the cheapest materials to work with.

7/32. *Newcastle.*—Infants' Soothing Mixture.—We should regard the following as a safe mixture:—

1 ounce of sodium .. ..	32 grains
Bicarbonate of soda .. ..	20 "
Anised extract .. ..	1 oz.
Comp. tincture of cardamoms .. ..	1½ drachm
Lill water to .. ..	2 oz.

Mix.

Dose: For children from 3 to 12 months old, half a teaspoonful in two teaspoonfuls of warm water at bedtime. The child should be allowed to sip it. Older children to get a teaspoonful of the mixture. *Anised Cordial*:—Oil. anisi m. iij.; S.V.R. 3iiss.; syrup, 3vss. M.

8/2. *Ephemer* makes Cooling Powders for Children from the following formula:—

Hydrarg. subchlor. .. ..	3j.
Sacch. alb. .. ..	3iss.
" lactis .. ..	3lss.

M.

Dose: 3 to 6 months, 3 grains; 6 to 12 months, 4 grains; 12 to 18 months, 5 grains.

He asks if we think an addition of antifebrin 3j. would be an improvement, or would

Hyd. subchlor. .. ..	3j.
Antifebrin .. ..	3j.
Sacchar. .. ..	3ij.

M.

be better still. We do not quite see the object of the addition. Upon many children the antifebrin would act as a hypnotic, others it might send into fits, and the few who might be good subjects for antifebrin would also be subjects for medical advice. Half a drachm of antimonial powder would be a good addition.

7/71. *Alpha (Porto).*—Cosmoline and alboline are names of products answering to the British Pharmacopœia description of "paraffinum molle."

7/41. *H. A. W.*—One of the most effectual Black Hair-dyes is the combination of perchloride of mercury and hyposulphite of soda. The following is the formula:—

(1) Perchloride of mercury .. ..	6 grains
Chloride of ammonium .. ..	6 "
Distilled water .. ..	oz.

Dissolve by the aid of a little heat, and add a few drops of essence of rose.

(2) Hyposulphite of soda .. ..	10 grs.
Water .. ..	3 oz.

Dissolve.

Directions: After washing the hair free from grease and allowing to dry, apply No. 1 with a suitable brush; allow to dry, then apply No. 2 in the same manner.

7/74. *H. A. A.*, who tells us that his "knowledge of the flea question is limited," addresses the following to us:—"The best way to kill fleas when they are throughout the whole house—in the walls, floors, furniture, &c. The tenant of the house has killed 1,500, by catching them, in the last month, and yet they are legion." Perhaps when "H. A. A." sees his request in type he will perceive the humour of it.

9/69. *Perfume.*—(1) Hypophosphite of quinine dissolves by the aid of any acid, but preferably hypophosphorous acid. Hypophosphite of iron also dissolves in that acid if it has been freshly prepared. (2) The Exchange Column is provided for such queries.

#### Information Wanted.

[Replies to the following requests are solicited by correspondents of THE CHEMIST AND DRUGGIST.]

7/71. *Remsen*.—What is it, and where procurable?

8/71. *Extract of Shonandoah Root.*—This is said to be an ingredient in a rat enchanter, and is supposed to be an American drug. What is it?

12/64. Address of makers of transparent window tablets.

12/31. Addresses of dealers in and manufacturers of chemicals, &c., used in making encaustic and tessellated tiles.

#### Information Supplied.

*Mr. J. W. Bilton* (Stoke-upon-Trent) recommends to 2/13 the "Albion" printing press.



From the following scene, together with the fact of his *NEVER ONCE USING THE WORD IN ALL HIS WORKS*, is it to be inferred that Shakespeare was unacquainted with “**SOAP**”?

MACBETH, ACT V., SCENE I.—*New Reading.*



*Lady Macbeth.*—What, will these hands ne'er be clean?

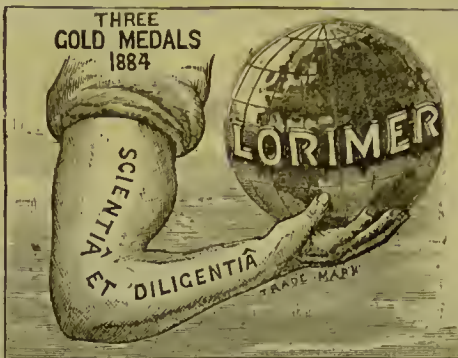
*Gentlewoman.*—Ay, Madam. Here, for a Shilling, is a sovereign remedy, fragrant of “all the perfumes of Arabia.”—**PEARS' SOAP.**



Telegraphic Address—"CALISAYIN LONDON."

Telephone No. 7524.

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GOLD MEDALS  
1884

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Chemical Food, Syr. Hypoph. Co., Concentrated Waters 1 to  
40, Fluid Extracts for Tinctures, &c., Pearl-coated Pills,  
Medicated Lozenges, &c., &c.

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Orders for Citrate Magnesia, Saline, Lime Juice Cordial, Ext. Malt, Fruit  
Syrups, and all Summer Specialities should be given well in advance.

PRICE LISTS ON APPLICATION.



# YE PARABLE OF YE GOLDEN MEDAL.

In ye 19th century ye great judge was ye British Public; and great were ye struggles to obtain its favour. Nowhere more than among ye Alchemysts.

Know ye all men that ye Olde Alchemysts, LORIMER & COMPANY, established near ye Olde Green, Islington, have been awarded by ye Medical Jury at Calcutta YE GOLDEN MEDAL for excellence in ye manufacture of PARRISH'S CHEMICAL FOOD.

Know ye also that this superiority of ye Islington Alchemysts hath caused great trouble in ye minds of ye rival manufacturers, who forthwith lament in sackcloth and ashes. One man (who having so often cried out to ye multitude, "I am ye original maker," that he at last believes it himself) thus tries, with much weeping, to reason out his own cause:—

"Ye are saying that yourselves have obtained ye Golden Medal in competition, with ye principal manufacturers, English and American, including, by inference, ourselves."

"But we did not compete, we did not. Oh! we did not compete."

Ye Olde Alchemysts, LORIMER & COMPANY, answer, "Ye did exhibit, and therefore did compete with them, at ye Ancient Healtheries Exhibition (see Catalogue); still ye did not obtain any distinction; therefore hold thy peace, and give place to ye better man who, as ye well know, holds ye only GOLDEN MEDAL ever given to PARRISH'S CHEMICAL FOOD.

"Ye cry for their GOLDEN MEDAL like unto a spoiled babe. Be a bold Englishman, and remember ye words of ye wise man,—

**"PALMAM QUI MERUIT FERAT."**

## SYRUP FERRI PHOSPH. CO., LORIMER.

"Parrish's  
GOLD MEDAL

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Food."

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LARGEST  
SALE, AND  
YIELDS  
BETTER  
PROFITS  
THAN ANY  
OTHER.



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1 lb. bottles,  
12s. dozen.

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of  
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with  
each order.

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# PAPAIN

(Dr. Finkler & Co.)

The new Digestive Ferment, recommended by the most eminent English and Foreign Authorities for the treatment and cure of

## DYSPEPSIA AND DIPHTHERIA.

Acts in ACID, ALKALINE, and NEUTRAL SOLUTION, and is capable of digesting one thousand times its own weight of FRESH FIBRINE.

*Extract of Report on Comparative Experiments with PAPAIN (Dr. Finkler & Co.), PEPSINE, and PANCREATINE, of best Quality, by E. G. Clayton, F.I.C., F.C.S., Member of the Society of Public Analysts, &c., &c.*

Summarising the results of my experiments, I am of opinion that the following facts are greatly in favour of PAPAIN (Dr. FINKLER & Co.) as a Digestive Ferment:—

1.—IT ACTS WITH REMARKABLE ENERGY IN A CONCENTRATED LIQUID. This is important, as the degree of concentration in the stomach and intestines is usually considerable.

2.—IT ACTS IN AN ACID, ALKALINE, AND NEUTRAL SOLUTION, so that it may be expected to exert an effect even when the reaction of the contents of the stomach has been changed to alkalinity or neutrality by indisposition, or artificially, as when drugs have been administered. Pepsine would certainly be useless in these cases.

3.—BEING ACTIVE IN AN ALKALINE AND NEUTRAL SOLUTION, it will continue to exert its influence when the food has passed from the stomach into the intestines, where the reaction is alkaline, thus identifying its action with that of Pancreatic (Zymine).

4.—IT IS CAPABLE OF ACTING MORE POWERFULLY THAN PEPSINE, even when the quantity of liquid is moderately or very large in proportion to the solid food to be digested.

LASTLY.—BESIDES THE PROTEOLYTIC ACTION, PAPAIN (Dr. FINKLER & Co.) exercises to a marked extent an emulsifying action on oils.

# EXALGINE

(BRIGONNET).—The new analgesic, manufactured by Messrs. BRIGONNET & NAVILLE, La Plaine St. Denis (France), recommended for Neuralgia, Sciatica, Angina, &c., by Bardet, Gaudineau, Binet, Dujardin-Beaumetz, Desnos, and lately by Prof. Fraser, M.D., F.R.S., F.R.C.P.E., of Edinburgh. (See *British Medical Journal*, February 15, 1890, page 344.)

# SALOL

(Prof. NENCKI'S PATENT).—The new antiseptic and anti-rheumatic Remedy, most successful in the cure of Acute Rheumatism, Articular and Chronic Rheumatism, Dysentery, Summer Diarrhoea, Cholera. As an antiseptic in place of iodoform for bandages and wadding.

# QUININE

(OBTAINED GOLD MEDAL, PARIS EXHIBITION, 1889). — Sulphate, Bisulphate, Bromide, Carbolate, Muriate, Phosphate, Salicylate, Valerianate, &c.; Quinidine, Cinchonidine, and Cinchonine Salts manufactured by the **FABBRICA LOMBARDA DI PRODOTTI CHIMICI, MILAN (ITALY)**.

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PURE AND CHEAP.

## ANALYSIS.

Bicarbonate of Soda	...	...	...	...	97.20
Mono Carbonate of Soda	...	...	...	...	1.90
Sulphate of Soda	...	...	...	...	trace
Chloride of Sodium	...	...	...	...	.035
Moisture	...	...	...	...	.82
Insoluble	...	...	...	...	nil

# PURE ALKALI,

GUARANTEED 58 DEGREES,

EQUAL TO 98 PER CENT. OF CARBONATE OF SODA.

Most economical form of Soda for the use of Printers,  
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# MORSON'S

## PURE NATURAL SALICYLIC ACID AND SALICYLATE OF SODIUM

### FROM OIL OF WINTERGREEN.

Experimental Research as to the General Comparative Action of the Natural and Artificial Salicylic Acids, and their Salts of Sodium. Read in the Section of Pharmacology and Therapeutics at the Annual Meeting of the British Medical Association held in Leeds, August, 1889. By M. CHARTERIS, M.D., Professor of Therapeutics in the University of Glasgow, and W. MACLENNAN, M.B., C.M.

See *BRITISH MEDICAL JOURNAL*, Nov. 30, 1889.

The deductions from these experiments indicate that artificial salicylic acid and its salt of sodium are dangerous and, in large doses, fatal to animals, while salicin, natural salicylic acid, and its salts of sodium are not. That artificial salicylic acid contains an impurity or impurities, and until this or these can be extracted by the aid of chemistry the internal administration of it or its salts of sodium should be discountenanced. Large and repeated doses of the sodium salt are necessary in the treatment of acute rheumatism, and hence we may account for the restlessness, the confusion, and the delirium sometimes attendant on its use, which have been testified by clinical experience. It is more than probable, too, that the retarded convalescence occurring in some cases of acute rheumatism after the salicylate treatment is due to the great and protracted prostration which the impurity or impurities give rise to. It is to be remembered in connection with these symptoms that prescriptions of the salicylate of sodium are invariably made up, unless otherwise indicated, from the artificial and not the natural salt.

The specimens with which the investigations were carried on were supplied by T. MORSON & SON, London—the Natural Acid and its Soda Salt being manufactured by themselves.

Medical men wishing to avoid the unpleasant and injurious effects of the artificial products, should prescribe the "Natural" preparations—MORSON'S.

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Contains pure Bismuth and *Pepsina Liquida* in combination with sedatives. A formula most serviceable in the treatment of gastric pain. In 4 oz.,  $\frac{1}{2}$  lb., and 1 lb. bottles.

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A standard preparation, of definite alkaloidal strength, containing the entire medicinal properties of the finest Cinchona Bark. It is, in fact, *Bark minus the woody fibre*, and its efficiency has been proved by careful medical enquiry. Dose: Ten to sixty drops.

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Fluid pepsine of extraordinary activity—tasteless, odourless, attractive to patients, and reasonable in price. Every teaspoonful when tested by the official B.P. process is guaranteed to effect the solution of 1,000 grains of albumen. Peptic power is the only test of value. Most of the foetid and repulsive dry Pepsines have proved worthless. In 4 oz. bottles, 2s. 6d. each; and larger sizes for dispensing at a cheaper rate.

## SCHACHT'S PEPSINA LIQUIDA C. BISMUTHO.

Each drachm contains in a concentrated form, besides the fluid pepsine, a full dose of Schacht's Liquor Bismuthi. Dose: One drachm. In  $\frac{1}{2}$  lb. and 1 lb. bottles.

N.B.—*Peps. Liq. c. Bismutho Co.* contains, in addition, one gr. soluble Euonymin in each drachm.

## SCHACHT'S PEPSINA LIQUIDA C. EUONYMIN.

Each drachm contains one grain of soluble Euonymin. Dose: One drachm. For dispensing  $\frac{1}{2}$  lb. and 1 lb. bottles.

## SCHACHT'S LIQ. PODOPHYLLI C. BISMUTHO.

A perfect solution of Podophyllin, containing  $\frac{1}{2}$  gr. in each drachm.

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A pleasant and active form of Cascar Sagrada. Dose: One to three teaspoonfuls diluted. In 4 oz.,  $\frac{1}{2}$  lb. and 1 lb. bottles.

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APPLICATION FOR SAMPLES INVITED.

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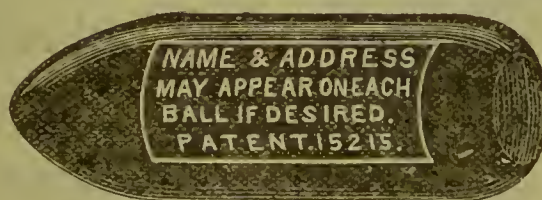
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	PER 1,000	PER DOZEN BOXES	NUMBER IN BOXES			RETAIL PRICE		
1 Pill	10/	8/ 15/ 22/	3 doz.	6 doz.	12 doz.	1/	1/9	2/6
2 "	15/	" " "	2½ "	5 "	10 "	"	"	"
3 "	20/	" " "	2 "	4 "	6 "	"	"	"

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## ESSENCE OF RENNET,

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In Bottles (4 oz.), 6d., (8 oz.) 1s., and (24 oz.) 2s. 6d.

" " 4s., " 8s., " " 22s. per dozen.



# Dr. J. COLLIS BROWNE'S CHLORODYNE.

THE ORIGINAL AND ONLY GENUINE.

## IMPORTANT CAUTIONS

From Lord Chancellor SELBORNE, Vice-Chancellor Sir W. PAGE WOOD,  
and the LORDS JUSTICES OF APPEAL.

VICE-CHANCELLOR SIR W. PAGE WOOD, by whom the suit in Chancery was first heard, stated in his judgment that 'Dr. J. Collis Browne was undoubtedly the Inventor of Chlorodyne, that the whole story of the Defendant Freeman was as deliberately untrue as the falsehood he had deposed to with reference to the use of his Chlorodyne in the Hospital.'

The VICE-CHANCELLOR also stated, 'that Chlorodyne was a fanciful name, and had application been made sooner, the Court would have given Dr. Browne protection.'

LORD CHANCELLOR SELBORNE coincided with the judgment of the Vice-Chancellor upon this point, and stated 'that had application been made at a proper time and place, the Court would have found means to restrain the Defendant from misrepresenting the decision of the Vice-Chancellor.'

LORD JUSTICE JAMES, on appeal, stated in his judgment, 'that the Defendant Freeman had made a deliberate misrepresentation of the decision of Vice-Chancellor Wood.'

It was proved in Court, on affidavit by Mrs. Forbes, of Paris, that the testimonial published in the *Times*, November 14th, 1865, speaking of the great efficacy of Chlorodyne in Cholera, referred to Dr. J. Collis Browne's Chlorodyne, and that she never used any other, that she had written to the Defendant Freeman to that effect; notwithstanding which notice the Defendant publishes the said testimonial as referring to his medicine.

The Editor of the *Medical Times*, in his report on Chlorodyne, January 13th, 1866, gives information that the Chlorodyne referred to was the medicine introduced by a retired Army Medical Officer, which was Dr. J. Collis Browne; still this is published by the Defendant as testimony to his medicine.

Numerous affidavits from eminent Physicians and others were produced in Court, stating that Dr. J. Collis Browne was the inventor of Chlorodyne, and that when prescribing they mean no other.

The Defendant himself publishes that his compound is in effect and composition quite different to any other preparation; nevertheless he assumes the name, testimonials, &c., of Chlorodyne.

Technicalities in law prevent that protection which the public should justly have against such a course of conduct. It is now incumbent on all who purchase Chlorodyne to see that the name, 'Dr. J. Collis Browne's Chlorodyne,' is engraved on the Government Stamp, as it is not sold otherwise. All other compounds under the name of Chlorodyne are spurious. All attempts at analysis have failed; hence the statement that the constituents of Chlorodyne are known is a misrepresentation.

ORIGINAL AND



ONLY GENUINE

## FURTHER IMPORTANT NOTICE.

The subjoined list of eminent Firms concur with Vice-Chancellor Sir W. Page Wood's statement in Court, that Dr. Collis Browne was undoubtedly the Inventor of Chlorodyne; and that when Chlorodyne, or the Original Chlorodyne, is ordered, they invariably supply Dr. J. Collis Browne's:—

Apothecaries' Hall,	London	Frazer & Green,	Glasgow	Morson, T., & Son,	London
Allen, Hanbury & Co.,	"	Gale & Co.,	London	Newbery & Sons,	London
Baile Brothers,	"	Giles & Son,	Clifton	Oldham, G., & Co.,	Dublin
Banks & Richards,	Birmingham	Goulding, Messrs,	Cork	Parsons & Richardson,	Leicester
Barron, Harvey & Co.,	London	Gratton & Co.,	Belfast	Peake, Allen & Co.,	Dublin
Bell, John, & Co.,	"	Grimwade, Ridley,	London	Raines & Co.,	York
Bourne & Taylor,	"	Grindley & Son,	Cheshire	Raines & Co.,	Edinburgh
Corbryn & Co.,	"	Hearon, Squire & Francis,	London	Sang & Barker,	"
Cox & Gould,	"	Hodgkinson, Tonge & Stead,	"	Sanger, J., & Sons,	London
Curling & Co.,	"	Hopkins & Williams,	"	Sim, James, & Co.,	Aberdeen
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Dobbin, W., & Co., Limited	Belfast	Hunt, A., & Co.,	"	Sutton, W., & Co.,	London
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Dunn & Company,	"	Langton, W., & Co.,	London	Tracher, Hodgkinson & Co.,	London
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Ferris & Co.,	Bristol	Maw & Son,	"	Wyleys & Brown,	Coventry
Foulger, B., & Son,	London	Meggison & Co.,	"	Yates & Co.,	London
		MacKay, John, & Co.,	Edinburgh		

After these public statements in a Court of Equity, and subsequent confirmation by the trade at large, no Chemist can conscientiously use or sell any other compound for Chlorodyne without committing a breach of faith, unjust to patient and physician. The value of the remedy alone creates the great demand.

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4/8..Biancard's Pills	32/	4/6..Elixir de Coca (Mariani)	48/	2/9.. " de Coca Mariani	25/	2/9.. Ditto	23/
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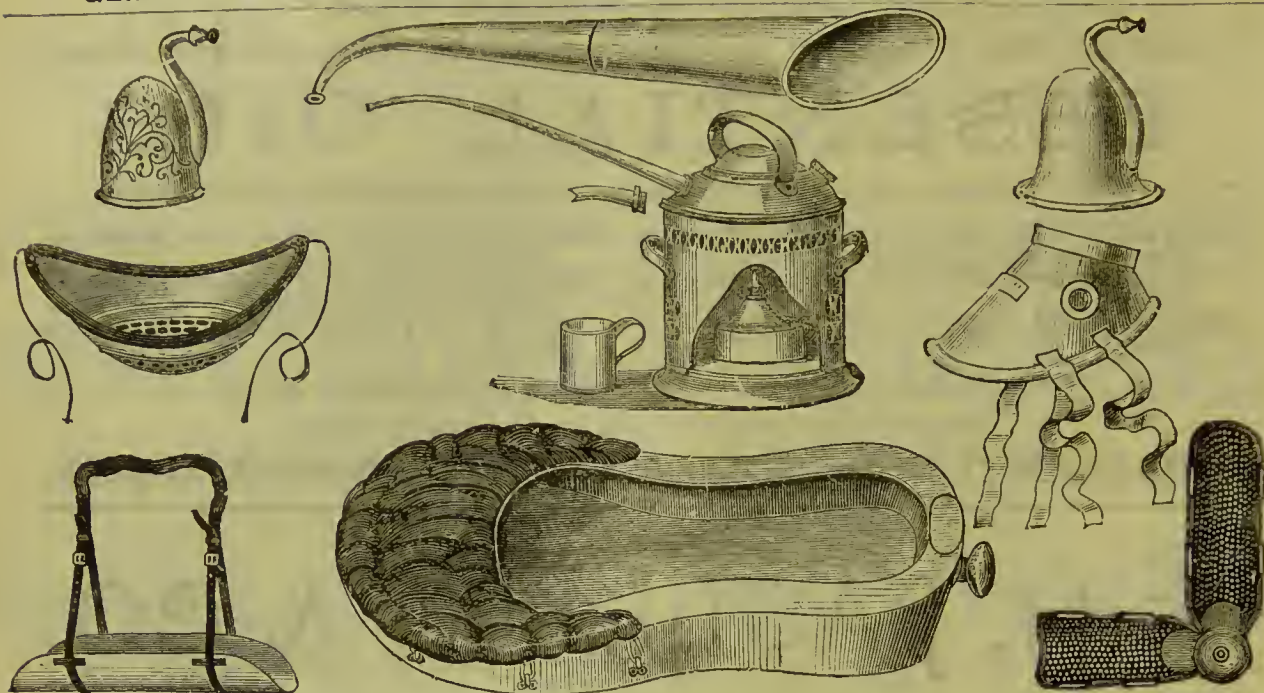
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**PREPARED ONLY BY THE INVENTOR.**

None Genuine except such as bears the above Trade Mark "SPIRONE" and the Signature of the Inventor upon the Bottle on the Label over the Cork, and on the Wrapper,

**JOHN FRANCIS CHURCHILL, M.D. (Paris),***The Discoverer of the Specific Cure for Consumption, and of the Medicinal Properties of the Hypophosphites.***Price 4s. 6d. and 11s. per Bottle.**

SET OF APPARATUS FOR ADMINISTRATION, 15/. PAMPHLETS AND SHOWCARDS FREE ON APPLICATION.

**THE SPIRONE COMPANY, Lim., Depot—17A Duke St, Manchester Square, LONDON, W.**



# COATED TASTELESS PILLS

## (EVANS').

These Pills are covered with a thin non-metallic and pearl-like coating, which renders them quite tasteless. The coating contains nothing whatever of a resinous nature, nor any other substance that would, in the least degree, interfere with their perfect solubility.

They contain the Essential Oils, as ordered by the official and other formulæ, the nature of the coating being such that it does not become discoloured or otherwise injured by their use. Hence there is no necessity to tamper with formulæ containing Essential Oils, by the substitution of Gingerine, which is frequently done.

---

# ROLLING & COATING PILLS

**According to Private Formulæ.**

1/6 to 5/ per lb. to account, according to size of Pill and quantity.  
Uncoated, 6d. per lb. less.

*PRIVATE RECIPES ARE COMPOUNDED & COATED IN FIVE OR SIX DAYS.*

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**LIBERAL DISCOUNT TO BUYERS IN QUANTITY.**

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LIVERPOOL—

**EVANS, SONS & CO.**

LONDON—

**EVANS, LESCHER & WEBB.**

And at MANCHESTER, BIRMINGHAM, MONTREAL, TORONTO, VICTORIA, PARIS, SYDNEY, &c.



Armbrecht's Coca Preparations have proved most successful to ward off Influenza, and to remove the weakness and lassitude during convalescence.

## COCA WINE EXTRACT

A SUBSTITUTE FOR COCA WINE.

*Or for making Coca Wine by adding five drops (or more) to Wine.*

A powerful nerve stimulant. Restores the functions of the digestive organs, strengthens the mental and physical powers, assauges thirst, relieves nervous debility. Given with benefit in cases of opium and morphia habit.

The *North Am. Med. Chir. Review*, March, 1880, has the following:—"This Coca produces a general exaltation of the circulatory and nervous systems, imparting increased vigour to the muscles as well as to the intellect, with an indescribable feeling of satisfaction . . . and, what is more singular, this state of exaltation is not followed by any feeling of languor or depression."

In small doses it increases appetite and promotes digestion (five or more drops before each meal). In cases of sleeplessness from exhaustion and fatigue it is invaluable, producing a sound and refreshing sleep without producing the distressing sensation so common after OPIATES, five or more drops at bedtime, and repeated once in an hour's time if necessary.

Retail price 3s. 6d. and 5s. 6d a Bottle.

## COCA LOZENGES.

These Lozenges are recommended instead of the wine where it is not convenient to take the latter. They contain the extract of the green Coca leaves, and may be used in cases of *loss of voice* before and after singing and public speaking. Harmless if even used to excess.

DIRECTIONS—Two or three Lozenges to be sucked whenever desired.

Retail price, 1s. 6d., 2s. 6d., and 5s.

These two preparations are especially recommended to Travellers, Cyclists, &c.

HANDBILLS, SHOWCARDS & PAMPHLETS FREE ON APPLICATION.

Trade Discount 25 per cent.

# Armbrecht, Nelson & Co.

2 DUKE ST., GROSVENOR SQ., LONDON.

### "THE CHEMIST & DRUGGIST" SAYS:

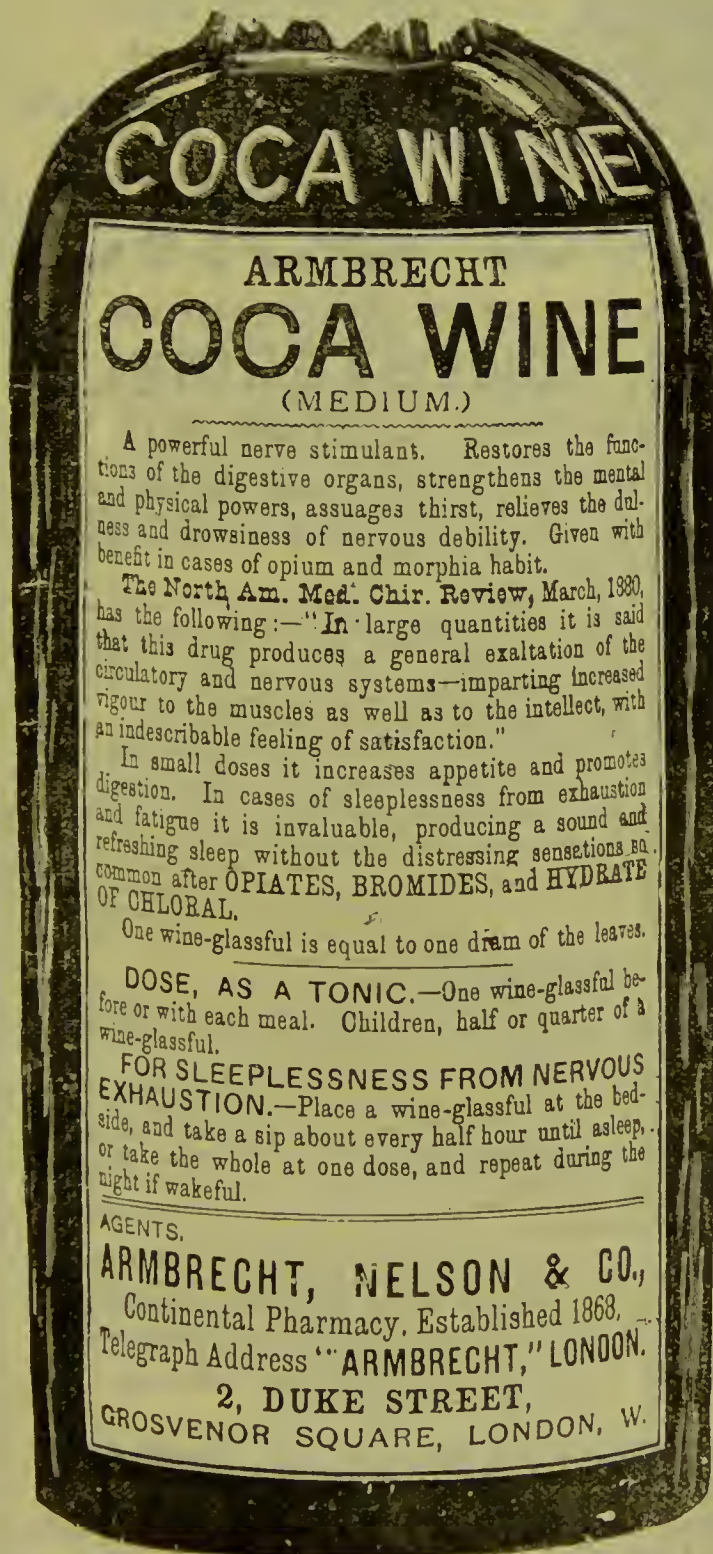
ARMBRECHT'S NOVELTIES.

"THE popularity of preparations of coca does not appear to be on the decrease. Messrs. Armbrecht, Nelson & Co., of Duke Street, Grosvenor Square, who have been so energetic in establishing the reputation of their coca wine, are now doing a useful thing by the introduction of a coca wine extract, five drops or more of which added to any wine produces a stimulating tonic of high power. The advantage of this preparation to travellers is apparent, and it carries with it the further recommendation that patients need not give up the use of any particular brand of wine which their physicians have ordered, since a few drops of the extract may be taken in the wine used in the ordinary course of dietary. The extract is put up in neat dropping bottles in a case, to retail at 3s. 6d. The same firm now make coca lozenges, two of which are equal in coca strength to a glass of coca wine. The lozenges are made with a fruit basis, are 'crystallised,' and not disagreeable to taste. They are put in strong boxes to retail at 1s. 6d. The prices are not marked in either case."



# ARMBRECHT COCA WINE.

[This Illustration represents the EXACT SIZE  
of the 4s. 6d. Bottle.]



"Several preparations of Coca Wine have been placed before the public, but we unhesitatingly accord to the above the first place. Their Coca Wine is more suited to the English palate than some of the continental preparations, which are too sweet to be palatable, and which destroy their otherwise tonic and invigorating qualities by deranging the digestive system or creating nausea. The value of Coca Wine in conditions of debility is too well recognised to require comment, and we need do no more than say that after a very careful trial of Messrs. ARM-BRECHT, NELSON & Co.'s Wine we can speak most highly of it as a sound and invigorating tonic, and can recommend it most unhesitatingly."—*Journal of Laryngology and Rhinology.*

TRADE DISCOUNT, 25 PER CENT.

Handbills, Show Cards, &c., Free on Application

**ARMBRECHT, NELSON & CO.,**  
2 DUKE STREET, GROSVENOR SQUARE, LONDON.



# SPECIALITIES IN SURGICAL TISSUES.

Absorbent  
Cotton Lints,  
Flax Lints,  
Roll Bandages,  
Cotton Wools.



TRADE MARK  
(REGISTERED).

"Gamgee Tissue"

(Patent Absorbent Gauze and  
Cotton Wool)

AND

all kinds of

Antiseptic Dressings.

MANUFACTURED BY

## ROBINSON & SONS,

Cotton Spinners, Weavers, and Bleachers,

WHEAT BRIDGE MILLS, CHESTERFIELD.

And 55 Fann Street, Aldersgate Street, LONDON, E.C.

### LINTS.

These we make by our improved machinery. Perfectly pure, strongly absorbent, beautifully soft, tears well, and very cheap. Their use in the largest Hospitals of London, Edinburgh, &c., is a sufficient guarantee of their quality. Our Flax Lint is the only **ABSORBENT** Flax Lint made, that we know of.

### BANDAGES.

Surgeons who have not seen our White Absorbent Roll Bandages should write us for a sample. As well as being all that is required for splints, &c., being instantaneously absorbent, **LOTIONS** can be applied direct through the Bandage, and they are also the very best Bandage for use with starch or plaster-of-Paris, &c. *We were the first to introduce to the Profession the now highly-valued White Open-weave Absorbent Bandages.*

### ABSORBENT COTTON WOOLS.

We were the Sole Manufacturers of Absorbent Cotton Wool for the late Sampson Gamgee, Esq., F.R.S.E., who introduced it into British practice, and have had a large and increasing demand for this article up to present date. We make a first-class article for Surgeons' private practice, and a pure cheap Absorbent Cotton for Hospital use. We are also Carders of both Grey and the ordinary grades of Non-Absorbent White Cottons.

### "GAMGEE TISSUE."

PLEASE READ THIS—

This *patented* article, recently introduced, and of which we are the sole proprietors and manufacturers, is deservedly increasing in favour with the profession. We quote the following extract from a Clinical Address delivered by **SAMPSON GAMGEE, Esq., F.R.S.E., Consulting**

Surgeon to the Queen's Hospital, Birmingham:—

"On purely surgical grounds, I have no hesitation in stating that the absorbent gauze and cotton tissue prepared at my suggestion by Messrs. Robinson & Sons, of Chesterfield, is the most generally useful and comfortable, the most easily manageable, and most economical surgical dressing with which I am acquainted.

"The tissue, as made in long lengths, is perfectly uniform in surface and thickness, and can be cut to any shape or size to pad the trunk or the limbs, in case of disease or injury. Powerfully absorbent and elastic, the tissue is equally serviceable for drainage and compression, for dressing blisters and burns, wounds and ulcers, sprains and fractures. The tissue does not stick in wounds, and can be applied and taken off with facility and without pain. It does not lump together but remains uniform, and is a most soothing and healing application to inflamed joints, and many skin affections.

"The tissue is susceptible of any antiseptic medication, and it also takes up plaster-of-Paris, cream, liquid glass, collodion or paraffin so readily as to make an excellent basis for splintage and moulds. A limb or the trunk may be very speedily and effectually immobilized by surrounding it with a layer of the dry tissue, and outside that placing a layer, or intersecting slips, of the same material previously soaked in plaster-of-Paris, cream, or other solidifiable substance"—which is best kept into its desired position by Robinson & Sons' Absorbent Bandages.

*N.B.—Certificate of Merit to Robinson & Sons for Bandages, Cotton Wools, and Lints. Exhibited at the International Medical and Sanitary Exhibition, London, 1881.*

*We place the highest value on this AWARD, as most of the Judges of Surgical Appliances at the late Exhibition have used our Lint, &c., for many years at the London Hospitals. No higher recognition of Quality can be given.*

**ROBINSON & SONS.**

OUR GOODS CAN BE HAD FROM THE WHOLESALE HOUSES OR DIRECT FROM THE MILLS.



# THE LIVERPOOL LINT CO.

Mark Street Mill,



LIVERPOOL,

MANUFACTURERS OF

## FLAX AND COTTON LINTS

SURGICAL BANDAGES, COTTON WOOLS,  
SURGEON'S AND CARBOLIZED TOW,

As used by the Home and Foreign Governments and Leading Hospitals.

*The whole of the processes of Manufacture being carried out by the firm, their Lints can be relied on for Purity, Softness, and Absorbing Properties.*

All qualities of their Lints will tear readily either down or across the piece.

### "THE COMPLETE SURGICAL DRESSING."

This patented article combines all the materials necessary for the Antiseptic Dressing of Wounds. It is composed of highly absorbent Cotton Wool, covered with white gauze on the face to prevent the fibres adhering to the part under treatment, and is backed with an impermeable tissue. This Dressing is ordinarily impregnated with Sublimate, but can be treated with any other Antiseptic.

By the use of this efficient combination a saving of time is effected, as compared with the present system, where several separate materials are necessary.

### "WOUND PADDING."

Is somewhat similar to the Complete Dressing. It is composed of a thick layer of Carbolic Tow incorporated with Absorbent Cotton Wool laid between white gauze on one side, and a waterproof backing on the other.

It is a beautifully soft and even material, and its great absorbing properties render it particularly useful for cases where there is profuse discharge.

### "SPLINT PADDING."

Is specially adapted for Padding in all its uses.

It is an inexpensive and most generally useful material, being composed of Carbolic Tow and Absorbent Cotton Wool made in thick soft layers.

By the use of this the difficulty experienced with Absorbent Cotton Wool (where the discharge is liable to clot) is done away with, it being more open and absorbent.

For use as Accouchement Sheets there is nothing equal to it.

### "ABSORBENT PROOFED FELT."

A cheap material for use where Fomentations are required.

It is a thick absorbent Felt with patented back, specially prepared to withstand Turpentine and Chloroform.

### "PROTECTIVE LINT."

Is particularly useful for use as a Water Dressing, and for the application of Ointments, &c., or may be used as a final covering in place of Gutta Serena Tissue, &c.

This Lint is put up in boxes containing 3 yards by 12 inches wide, and should be kept in every household.



**IMPORTERS**

AND

**ALL BUYERS**

OF

**BOTTLES**

AND

**GLASSWARE**

ARE REFERRED TO

**PRICES CURRENT**

**PAGES 336 to 346,**

**Chemists' & Druggists' Diary**

**1890.**



# SPECIALITIES.

INTERNATIONAL FEEDING BOTTLES.

PERFUMERY FACTORS' BOTTLES.

AERATED WATER BOTTLES

Every Class and Description.

SCREW STOPPERED BOTTLES.

SCREW-CAPPED BOTTLES,  
POTS, JARS, AND GLASSES.

HAND-MADE SHOP ROUNDS.

SHOW CARBOYS, BOTTLES, AND JARS.

*Send for Illustrated Price Lists.*

# BREFFITS'

(LIMITED),

AIRE & CALDER BOTTLE CO.

83 Upper Thames St., London.



# WILLIAM TOOGOOD'S

## WAREHOUSE AND SHOW ROOM,

### BURLINGTON BUILDINGS,

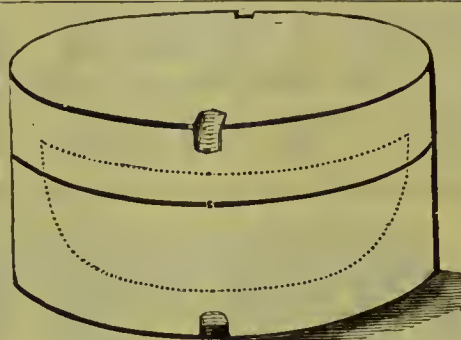
### HEDDON STREET, REGENT STREET, LONDON, W.

#### TOOGOOD'S

#### IMPROVED PATENT

## EARTHENWARE COVERED POTS

Are claimed to be the most perfect and convenient yet offered to the Trade.



Owing to the increasing demand for our Patent Pots, we have introduced a Special THIN Series for Dispensing.

These Pots are beautifully glazed and finished, and, being very light, are specially adapted for sending by post.

ORDINARY THICKNESS—										
1 dr.	2 dr.	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{2}$	2	3	4	6	8 ounces.
1/6	1/6	1/6	1/8	1/10	2/	2/3	2/10	3/6	4/6	5/6 per doz.
THIN FOR DISPENSING—										
$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{2}$	2	3	4	6	8	10	ounces.
1/7	1/9	2/	2/2	2/5	3/	4/	5/	6/	6/	per doz.

# THE LACTOTHERME

## (REGISTERED TRADE MARK) OR

## INFANTS' PORTABLE MILK STOVE,

Patented in England and Abroad.

### ADVANTAGES.

The Lactotherme heats milk exactly to the proper temperature at which it should be given to Infants, viz., 98 degrees Fahrenheit, this being the temperature of the milk from the mother's breast.

The Lactotherme does not cause the milk to turn sour.

The Lactotherme greatly benefits the health of Infants, as by giving food at a proper temperature, Colic, Diarrhoea, and Convulsions are guarded against.

The Lactotherme is portable, and may be as effectively used in a Railway Carriage as in the Nursery.

The Lactotherme will be also found a boon to Invalids for keeping warm Beef Tea, &c., during the night.

The Lactotherme is safe, cleanly, and effective, and burns without smell.

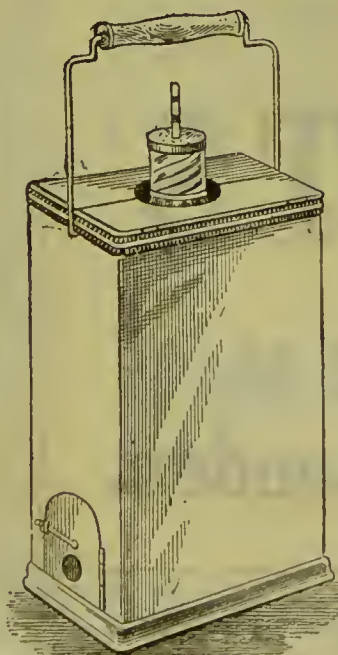
### WHOLESALE PRICES.

No. 1. Japanned Iron, 6/- each. No. 2. Polished Brass, 8/6 each.  
No. 3. Nickel Plated, 10/- each.

Each Apparatus is furnished complete with Thermometer, Box of Prepared Carbon, Box of Wicks, and Float.

**TOOGOOD'S PATENT BRONCHITIS AIR KETTLE,**  
51/- per dozen.

SOLE AGENT FOR DR. LEE'S STEAM DRAFT INHALERS.







PHILADELPHIA, 1876.

PRIZE MEDALS. INTERNATIONAL EXHIBITIONS.



MELBOURNE, 1880.



SYDNEY, 1879.

# KILNER BROTHERS

## GLASS BOTTLE MANUFACTURERS.

No. 3<sup>A</sup> GREAT NORTHERN GOODS STATION, KING'S CROSS, LONDON.



PARIS, 1878.

Telegraphic Address:

"BOTTLES LONDON."



LONDON, 1862.

Telephone

No. 7509.

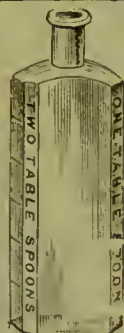


PARIS, 1875.

EXCELLENT  
QUALITY.

EXTENSIVE  
VARIETY.

PRICES LOW,



Dispensing.

FEEDING, PICKLE,  
DRUG, OIL,  
SAUCE, VINEGAR

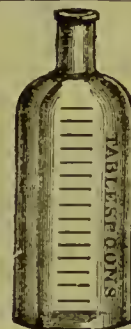
**BOTTLES.**



FIRST ORDER OF MERIT,  
MELBOURNE, 1888.



Feeding.



Dispensing.

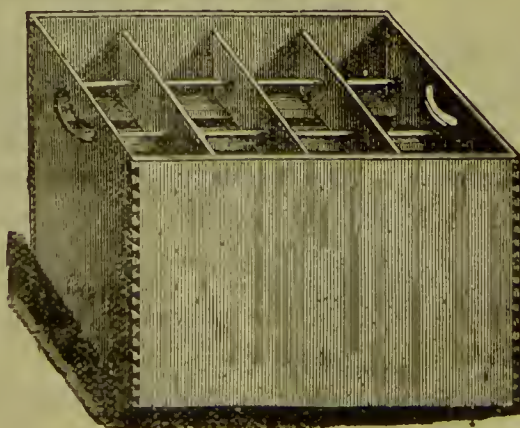
WINE, SPIRIT,  
BEER,  
CONFECTIONERY

**BOTTLES.**

QUOTATIONS  
AND  
SAMPLES SENT  
ON  
APPLICATION,



Mineral Water  
BOTTLES.



VAN BOXES.



Mineral Water  
BOTTLES.

CASES.





# R. H. BARRETT,

Flint Glass Bottle Works,

THE OVAL, CAMBRIDGE HEATH, LONDON, E.

THE HEART SCENT BOTTLE (Reg.), for Salts or Perfume.

Is most admirably adapted for pocket use, combining great beauty of design with the maximum of convenience.

Price, Plain or Fluted (in 5 GROSS lots) :- Assorted WHITE and COLOURED, 12/6 per gross. N.B.—The Caps for these will be fitted, if desired, with indestructible washers, to resist the action of ammonia, which destroys cork in a short time.

METAL SCREW-CAPPED LIMES, in White Flint, Actinic Green, or Amber The Best Bottle for Glycerine or Pills. Prices: 1 oz. 13/6, 2 oz. 15/-, 3 oz. 18/-, &c. per gross.

Chemists' and Perfumers' Bottles in great variety, Plain or Stoppered.

Orders may be sent to the PRINCIPAL WHOLESALE HOUSES.

TELEGRAPHIC ADDRESS—"FOREFRONT LONDON."

[13]



**GLASS  
BOTTLES**

OF THE

**BEST**

**QUALITY.**

DISPENSING, PICKLE, SAUCE, OIL,  
MINERAL WATERS, &c., &c.

SAMPLES AND PRICES ON APPLICATION.

**E. YOULDON,**

EAST LONDON GLASS BOTTLE WAREHOUSE  
36 to 40 Great Garden Street, Whitechapel,  
LONDON, E.



CHALMERS' PATENT SAMPLE AND PARCELS POST BOX.

# THE ONLY BOX

That fulfils ALL the requirements of the POST OFFICE.



Is fastened INSTANTLY.

Cannot open by accident.

Is immensely strong.

Has no corners.

No seams, joints, nor solder.

Nothing to scratch or tear letters.

Is practically air-tight:—Is used for Flour, Cherry Blossom, Sanitas, and Soap-Powders.

Dispenses with string, bags, and paper.

Saves 19 minutes out of 20.

**94,500 SOLD IN THREE MONTHS**

SAVING THEIR OWN COST.

**W. B. CHALMERS,** 37 MINCING LANE, E.C.



# NEW CAPSULING MACHINE

The only Machine  
which leaves no crease  
or pleat on the  
Capsule.



Can be fixed to any  
Counter.  
A single pull of the lever  
is sufficient  
to fix the Capsule.

Patentee—C. MELIN, 37 Crutched Friars, LONDON, E.C.

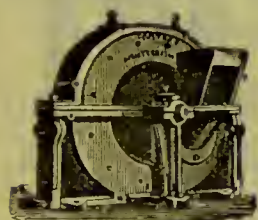
# CARTER'S DISINTEGRATORS

*Will Pulverise, Granulate, or Shred almost any Mineral, Vegetable, or Animal Substance.*

## NEARLY 1,300 IN USE

IN ALL PARTS OF THE WORLD.

For Grinding Sugar, Bark, Linseed, Ginger, Pepper, Spices, Salt, &c., this Machine is invaluable.  
Made in 9 Sizes. Illustrated Catalogue may be obtained on application.

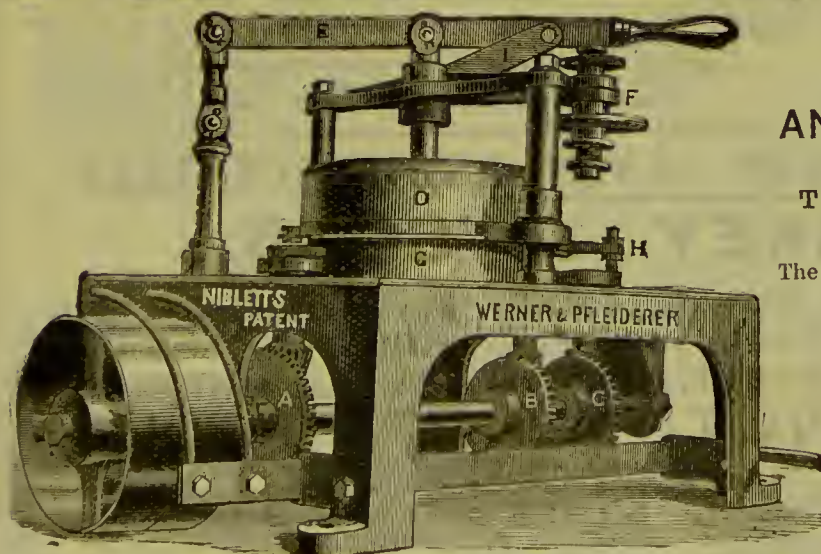


Samples of ANY Material will be Ground free of charge.

J. HARRISON CARTER, 82 Mark Lane, LONDON, and 3 Rue du Louvre, PARIS.

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# WERNER & PFLEIDERER'S PILL-MAKING MACHINERY.



## PILL ROUNDING AND FINISHING MACHINE

(NIBLET'S PATENT).

### THE ONLY PERFECT MACHINE FOR THIS OPERATION.

The Pill Plate takes  $\frac{1}{4}$  lb. of Pills at once, and these are rounded in less than one minute. Can be worked either by hand or power. Used most satisfactorily by some of the best firms in the trade.

WRITE FOR PRICE AND PARTICULARS.

### The "UNIVERSAL" KNEADING & MIXING MACHINE FOR PILL MASS MAKING.

Also for Horse Balls, Tooth Pastes, Ointments, Soaps, Powders, and for General Mixing and Incorporating.

PIPING PRESSES, PILL CUTTERS, PILL COATERS.

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TELEGRAMS—"PFLEIDERER LONDON."



## MANUFACTORY.

"Eclipse" Glass Works  
Lea Bridge, Clapton, London, E.

Prize Medal, Adelaide Exhibition, 1887.

Award of Merit, Melbourne, 1888.

## OFFICES AND WAREHOUSES:

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LONDON, E.

# E. A. HEARN & CO.

## WHOLESALE AND EXPORT GLASS BOTTLE MANUFACTURERS.

Makers of EVERY DESCRIPTION of Glass Bottles, either PLAIN or STOPPERED, in

WHITE FLINT, AMBER, BLUE, MEDICAL GREEN, ACTINIC GREEN, &c., &c.  
OR ANY COLOUR MADE TO ORDER.



FEEDING BOTTLES IN ALL SHAPES,  
PLAIN NECKS OR SCREW STOPPERED.

**SPECIALITY.**—First-class Quality at Reasonable Prices.



## TO CHEMISTS AND DRUGGISTS.

AGENTS WANTED FOR THE SALE OF CLARK'S PATENT

### "SYPHON"

(REGISTERED TITLE)

### HYGIENIC CONDENSING GAS HEATING STOVES.

NO FLUE REQUIRED. ARE FREE FROM SMELL OR SMOKE.

All injurious vapours are reduced to harmless liquid inside the Stove, and passed out at foot into a tray provided for that purpose.

FOR USE IN HOSPITALS, SICK CHAMBERS, BEDROOMS, HALLS, CONSERVATORIES, CHURCHES, SCHOOLS, ETC.

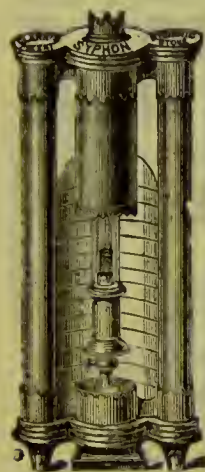
Specialty suitable for patients suffering from Bronchial affections, as a moist atmosphere is obtainable when required.

FOR TERMS, PARTICULARS, AND PRICES, APPLY TO

**S. CLARK & CO.,** Patentees & Makers, Syphon Works, Park St., Islington, LONDON, N.

Telegraphic Address:—"SYPHON STOVES LONDON."

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## E. FOUGERA & CO.,

No. 30 NORTH WILLIAM STREET,  
NEW YORK, U.S.A.,

Importers of and Agents for the Principal  
FOREIGN MEDICINAL PREPARATIONS  
AND SPECIALTIES.

AGENCIES AND CORRESPONDENCE SOLICITED.

## FOR CLEANING PLATE

BRADLEY & BOURDAS'S

ALBATHUM or WHITE ROUGE,

For Cleaning Gold, Silver, and Plated Goods.

Since its introduction as a substitute for the ordinary Rouge, a quarter of a century ago, the sale has amazingly increased both at home and abroad. A trial is only needed to prove its superiority over other plate powders in use. Sold in Boxes at 1s. and 2s.; Tins, 6s. 6 Pont Street, Belgrave Square, and 48 Belgrave Road, London, S.W.

## GENUINE EMERY, EMERY CLOTH, AND BLACK LEAD.

### JOHN OAKLEY & SONS,

MANUFACTURERS OF

Glass and Flint Paper, Emery and Glass Cloth; Emery, Black Lead, Emery Wheels  
Pumice, Putty Powder, Crocus, Urn Powder, Tripoli, Rouge, Plate Powder, Steel Polish  
Furniture Polish, Knife Boards, Brunswick and Berlin Black, &c.

### OAKLEY'S WELLINGTON KNIFE POLISH,

Prepared expressly for Oakley's and other Knife Boards, Buff Leather Boards, and all the Patent Knife Cleaning Machines,  
Sold in Canisters with perforated Tops to prevent waste, at 1d., 2d., 3d., 6d., 1s., 2s. 6d., and 4s. each.

### OAKLEY'S NON-MERCURIAL SILVERSMITH'S SOAP,

For Cleaning and Polishing Silver, Plate Glass, Marble, &c. Tablets, 6d. each.

### OAKLEY'S "POLYBRILLIANT" (REGISTERED).

A Magic Pomade for Cleaning Brass, Copper, Tin, Pewter, Britannia Metal, &c. Never becomes dry and hard like other Metal Pastes.  
Tins 1d., 2d., 3d., and 6d. each.

### WELLINGTON BLOCK BLACK LEAD,

In 1d., 2d., and 4d. Blocks, and 1s. Boxes.

WELLINGTON EMERY & BLACK LEAD MILLS, Westminster Bridge Road, London, S.E.

Highest Award and Prize Medal, Philadelphia Exhibition, 1876; and Boston, 1883. Gold Medal, Crystal Palace, 1881.



**PLEASE  
NOTE.**

We guarantee our **S.V.R.** to stand the Nitrate of Silver and the Ammonia tests, and to be entirely free from the offensive odour which usually characterises low-price spirits.

Pure Grain Spirit B.P., 56 o.p., 18/5 per gallon.  
" " Double Distilled, " 18/9 "  
CASH WITH ORDER.

**S.V.R.**

**SPECIALITY FOR PERFUMERY.**

This pure grain spirit, which has been thrice rectified and filtered through charcoal, is being largely used in making high-class Perfumes.

Price, 19/-, 56 o.p.; 19/6, 60 o.p. Cash with order.  
Reductions for Quantities.

**STEPHEN SMITH & CO., BOW, LONDON, E.**

**S V R**  
0 0  
56 60  
18/3 18/9

**SPECIAL QUOTATIONS FOR QUANTITY.**

Cash with  
Order

**GEORGE PHILLIPS & CO.**  
St. Andrew's Distillery, 49 Clerkenwell Road,  
**LONDON, E.C.**

THE

**CHEAPEST HOUSE**

**FOR METHYLATED SPIRIT.**

**DISTILLED BY OURSELVES.**  
**VERY HIGHLY RECTIFIED**  
**AND CHEMICALLY**  
**PURE.**

Cash  
with Order.

**S V M**  
0 2/3  
64

Jars, 2-gallon, 2/6; 3-gallon, 3/; 4-gallon, 4/.  
Drums, 5-gallon, 3/6; 6-gallon, 4/; 10-gallon, 6/.

**BEESWAX.**

**W. H. B. PURE REFINED.**

In 2-lb. cakes, in cases of about 130 lbs.

" 1 "	" "	130 "
" 1 1/2 "	" "	110 "
" 1 1/4 "	" "	110 "
" oz. cakes in 2-lb. parcels in cases of 54 lbs.		

**W. H. B. PURE WHITE.**

In round cakes in 2-lb. parcels, or in oblong cakes, loose } in cases of 54 lbs.  
In oz. cakes in 2-lb. parcels } and 56 lbs.  
Plain blocks of 7 1/2 lbs. in cases of 250 lbs.

**WHITE WAX.**

Plain round cakes in 2-lb. parcels in cases of 72 lbs.

The purity of these goods is certified by the following eminent chemists: S. P. Sharpless, State Assayer, Boston; J. W. Taylor, Associate of the Society of Public Analysts of Eng., Montreal, P. Q.; Edward Davies, F.C.S. and T. I. C. and C. Royal Institution, LIVERPOOL, Eng.; Bernard Dyer, D.Sc., F.C.S., F.I.C., Member of the Society of Public Analysts, 17 Great Tower Street, LONDON, E.C., Eng.; Wm. T. Wenzel, Analyst and Assayer, San Francisco, Cal., and may be obtained of any of the leading Wholesale Druggists in the Northern and Midland Counties.

We will deliver our goods in 5-cut. lots ex quay, in any city which is the Terminus of a Steamship Line throughout the Kingdom, without trouble or expense to the Buyer.

Our Goods may be obtained in single Case lots from any of the Leading Wholesale Druggists in the Northern and Midland Counties, and of

**W. H. BOWDLEAR & CO., BOSTON, MASS., U.S.A.**

Cable Address: ]

Office and Warehouse—36 CENTRAL WHARF. [" Bowdlear Boston."

MAKERS OF

**METH. SPIRIT FINEST GRAIN.**

NOTE

THE  
PRICES.

61 o.p. 2/2 per gall. in casks	} 2 1/2 per cent. Delivered
64 o.p. 2/3 " "	
TINS EXTRA.	

WE ALSO TURN OVER THE VARIOUS  
GUMS, SHELLACS, WAX,  
GELATINES, GLUES &c.,

ON BROKERAGE

PROFITS.

WE INVITE  
COMPARISON

ESTABLISHED

**1840.**

TELEGRAMS—"METHYL MANCHESTER."

**J. & D. MACNAIR & CO.,**

OHEETHAM DISTILLERY AND WAREHOUSES,

AND AT 29, 31, 33 Robert St.,

BRIDGETON, GLASGOW. **MANCHESTER.**

SPECIAL QUALITY.

**S.V.R. WATER WHITE.**  
**GRAIN DISTILLED.**

SPECIAL IMPORT OF

**COD, CASTOR, & OLIVE OILS.**



**CARLESS, CAPEL & LEONARD,**

REFINERS OF BENZOLINE AND NAPHTHA DISTILLERS,

**HOPE CHEMICAL WORKS, HACKNEY WICK, LONDON, E.**

PETROLEUM OIL of best Brands; WATER WHITE OIL (high test);  
CLEANING SPIRIT (for Dyers' Use); BURNING NAPHTHA and SOLVENT  
NAPHTHA; GASOLINE (sp. gr. 650); BENZINE (sp. gr. 730); BENZOLE,  
CARBURINE, AUTOLINE, APOKATHARTIKON (Universal Cleaning Spirit),  
&c., &c., &c.

PETROLEUM BARRELS ALWAYS PURCHASED, DELIVERED AT ANY RAILWAY  
STATION OR WHARF IN LONDON.

**METHYLATED SPIRIT,** In Bottles, Cans, and Barrels.

VARNISHES, STAIN VARNISHES, MIXED PAINT, ENAMEL,

IN SMALL PACKAGES READY FOR USE.

CHEMICALS, COLOURS, AND OILS OF ALL KINDS.

**S. BOWLEY & SON,** Wellington Works, Battersea Bridge, **LONDON, S.W.**

**JAMES BURROUGH,** **S. V. R.** **and Methylated Spirit**  
56 o.p. 60 o.p.  
AT LOWEST PRICES.  
WRITE FOR QUOTATIONS.

**PHOSPHORUS** STICK; AMORPHOUS. Sole Originators & Makers of GOLD MEDAL GLUE.  
GLUES, GELATINES THICK & POWDERED SIZE In lb. Packets.  
SHEET. ENTIRELY FREE FROM SMELL.  
**COIGNET & CO.,** 150 FENCHURCH ST., LONDON.  
Works: PARIS, ST. DENIS, & LYONS.

**CHEMISTS' SHOP FITTINGS, SHOW CASES, &c.**

FOR BEST WORK AT LOW PRICES SEND TO

**G. TREBLE & CO., 2 KINGSLAND GREEN, DALSTON, LONDON.**

PLANS AND ESTIMATES FREE. SPECIAL ATTENTION PAID TO EXPORT ORDERS.

**S. V. METH.** **JONES & COMPANY,**  
COPPERFIELD ROAD  
LONDON, E.  
LARGEST MAKERS IN THE KINGDOM.

We are prepared to supply METHYLATED SPIRIT in  
5-gallon quantities at Lowest Prices.

**REDUCTIONS TO LARGE BUYERS.**

SAMPLES FREE.



# ANGLO-AMERICAN OIL COMPANY, LIM.

LONDON.

HULL.

GREAT YARMOUTH.

LIVERPOOL.

NEWCASTLE.

LYNN.

BRISTOL.

SOUTH SHIELDS.

STOCKTON.

HEAD OFFICES—16 ST. HELENS PLACE, BISHOPSGATE ST., LONDON, E.C.

## American Refined Petroleum.

The long established superiority of "**Tea Rose**," "**Royal Daylight**," "**White Rose**," and "**Westminster**" American Petroleum Oils, manufactured by the Standard Oil Company of the United States, is well known to the Trade and to Consumers, and no Oils are so widely and justly celebrated. Their superior burning qualities, freedom from odour and from any tendency to smoke, and their general excellence, have placed them above comparison with any and all other brands.

In order to meet the largely increasing demand for these oils, and the better to supply the Trade generally, we have arranged to import them from the United States in bulk as well as in barrels. We shall fill the Oil which we import in bulk into barrels at our own wharves, and as our cooperage facilities are modelled upon the best American methods, buyers will receive the Oil in tight and clean packages.

Our Tank Steamers, "**Manhattan**" and "**Bayonne**," in their construction, arrangements, power and size, are in advance of any tank steamers afloat, and each has a carrying capacity of 4,000 tons, equivalent to 28,000 barrels of Oil by each steamer.

We shall keep large stocks of these Oils constantly on hand at all our Importing Centres and Depôts, and in this manner be able to supply the Trade promptly. Being the representatives in the United Kingdom of the Standard Oil Company, of America, we are in the best possible position for supplying the trade on the most favourable terms.

To cover the special requirements of London buyers, we have completed the construction of a large Storage Wharf at Purfleet, which will be worked in connection with our Depôts at—

AILSA STREET, BOW CREEK, E.

CANAL WHARF, CHALK FARM ROAD, N.W.

ALBANY WHARF, ALBANY ROAD, CAMBERWELL, S.E.



# ROBINSON & SONS,

MANUFACTURERS OF  
ROUND AND SQUARE CARDBOARD

# BOXES

FOR THE

**DRUG, DRYSALTERY & CONFECTIONERY TRADES,**

LABELS WHEN PRINTED TO OUR INSTRUCTIONS WE PUT ON PILL AND OTHER BOXES FREE OF CHARGE.

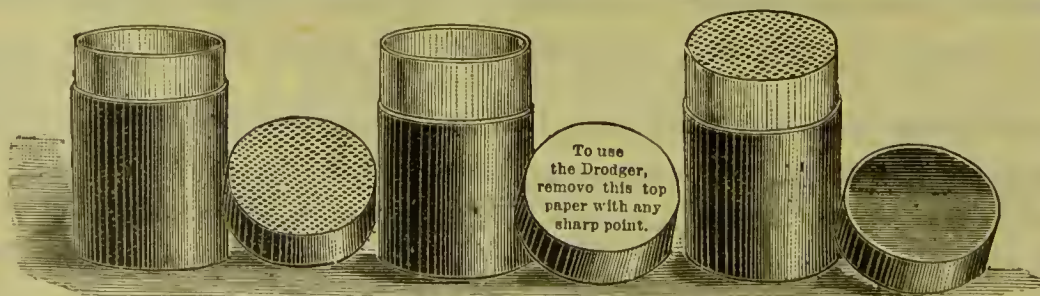
ESTABLISHED 1839.

## BOXES AND CASES FOR

Baking Powder, Black Lead, Bottles, Camphor Ball, Capsules, Castor Oil, Cough Lozenges, Dispensing Powder, Eye Ointment, Fancy Boxes, Fuller's Earth, Folding Boxes, Glass Top Outers, Homœopathic Bottles, Insect, Powders, Ink Cases, Jewellery, Lozenge, Lip Salve, Magnesia, Metal Paste, Marking Ink, Nipple Shields, Night Lights, Parcel Post, Pastilles, Pills, Potash, Tablets, Plasters, Salt Lemon, Seidlitz Powder, Starch Gloss, Soaps, Soda Powder, Syringes, Tapers, Tooth Powder, Violet Powder, &c.

# INSECT POWDER BOXES.

COVERED IN ANY STYLE TO SUIT PURCHASERS.



A PERFORATED ZINC ON TOP OF LID.

B

C

B C " " but covered with a printed card, which can be removed to dredge the Powder.  
C " " INSIDE THE BOX, the shoulder being left loose for filling.

WHEATBRIDGE MILL & HOLMBROOK WORKS, CHESTERFIELD,  
AND  
55 Fann Street, Aldersgate Street, London.



## PATENT FOLDING CARD BOXES.

I. W. PARMENTER &amp; CO., LIMITED

MANUFACTURERS &amp; PRINTERS.

CARTOONS AND TRADE CIRCULARS, &amp;c.

A Large Assortment of Papers, Straw Boards, Wood  
Pulps, and Manillas of various thicknesses, with linings  
of all kinds, kept in stock.



Sample Boards of all colours, lined, painted, or glazed,  
sent for selection. Proof Cartoons sent for approval. Trade  
Circulars and Advertisements executed in the best style.

## ADVANTAGES.

1. ECONOMY.—These Boxes are much Cheaper than the stand up Boxes.
2. ECONOMY OF SPACE IN STORAGE.—50 folded Boxes fit in the same space as 5 standing.
3. ADVERTISING.—Can be Printed on all sides, black or colours, plain or fancy. Blocks supplied and charged to account, if desired.

Send Sample Box or dimensions, state nature of contents, and number required, and Estimates, plain and printed, will be forwarded.

**NOTE.** Considerable Reduction of Price on large quantities.

I. W. PARMENTER & CO., LIMITED, are the Largest Manufacturers of Patent Folding Boxes.

**PATENT EGG BOX, No. 12,208, &c.**

Telegraphic Address—"ENUMERATE."

Telephone—No. 6561.

FACTORY AND PRINTING WORKS—

7 & 8 KIRBY STREET, HATTON GARDEN, E.C.



ESTABLISHED  
1840.**DAY & SONS'**AWARDED  
**40**  
PRIZE  
MEDALS.**WORLD-FAMED HORSE & CATTLE MEDICINES.**

LARGEST SALE IN THE WORLD.



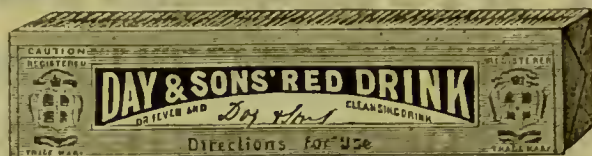
FOR Colic or Gripes in Horses and Cattle.  
FOR Debility and Chills in all Stock.  
FOR Scour in Calves and Lambs.  
FOR Hoven or Blown Cattle and Sheep.  
FOR Shivering Fits in Horses.  
FOR Weakness after Lambing or Calving.

PRICE—10/ PER HALF-DOZEN OR 19/ PER DOZ. BOTTLES



FOR Healing all Wounds in all Animals.  
FOR Kicks, Stake Wounds, Broken Knees in Horses.  
FOR Cracked Heels and Saddle Galls in Horses.  
FOR Sore Teats and Swollen Udders in Cows and Swes.  
FOR Dressing and Anointing in Lambing and Calving.  
FOR Every Horse-keeper, Farmer, and Shepherd.

PRICE—2/6 PER BOTTLE.



FOR Fevers, Yellows, Indigestion, and Dniness  
FOR Red Water, Costiveness, and Mawbound.  
FOR Disordered System in Cattle.  
FOR Bad Cleansing after Calving.  
FOR Preventing Milk Fever and Inflammation.  
FOR Purifying and Increasing the Milk.

PRICE—12/ PER DOZEN PACKETS.



FOR Ill Condition, Off Appetite, Disordered System.  
FOR Heat-lumps, Itching, and Soury Skin.  
FOR Hidebound, Bad Water, and Blood Ailments.  
FOR Coughs, Colds, Sore Throats, and Fevers in Horses.

IN OANISTERS.

PRICE—3/6, 7/, 14/, AND 21/.

THE "ORIGINAL" UNIVERSAL MEDICINE CHEST, £2 4s. and £5. FOR ALL DISORDERS OF HORSES, CATTLE, AND SHEEP.

Only Prepared by the Inventors, **DAY & SONS, Crewe, Cheshire, ENGLAND.**

Exporters are invited to apply for terms. Liberal Discount offered.

**"WORTH ITS WEIGHT IN GOLD!"****BRAGGI'S  
OINTMENT AND PLAISTERS.**

A CERTAIN and SPEEDY CURE for  
SPRAINS, BRUISES, BURNS, WOUNDS, BOILS,  
SCIATICA, ECZEMA, PILES,

And "the thousand ills which flesh is heir to."

HUNDREDS OF TESTIMONIALS FROM WELL-KNOWN PERSONS.

Ask your Chemist for the OINTMENT or PLASTER, and

**DON'T BE PUT OFF WITH ANY OTHER.**

Sold everywhere, 1/11. Post free for 15 Stamps.

**P BRAGGI & CO., Ltd., 92 Bartholomew Close, London, E.C.****COLTHURST & HARDING,**BALL DENOTES  
COLOUR OF PAINT.

BRISTOL—Manufactories: Phoenix Wharf and  
Temple Gate. Offices: Temple Gate. Telegrams:  
"Phoenix Bristol."

LONDON—Manufactory: Alpha Works, Millwall  
E. City Office: 16 Fife Street Hill, E.C. Tele-  
grams: "Alpha Brand London."

**HARD LUSTROUS ENAMEL,**  
IN ALL THE ART SHADES.

For all kinds of decoration on Wood or Iron. Dry  
with a surface like Porcelain. Sold in small or large  
Tins, or in bulk. Prices and shades on application.

**WHITE LEAD, ZINC WHITE,**  
PAINTS & COLOURS OF ALL KINDS.

**MIXED PAINTS READY FOR USE,**  
In Tins, 1, 2, 4, 7, and 14 lbs. each.

**HIGH-CLASS VARNISHES**  
Of all kinds, for Coachbuilders, Decorators, &c.  
OIL BOILERS, REFINERS, & MERCHANTS

Export Orders receive special and prompt attention.

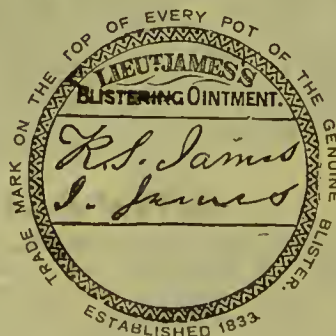
**INDEX TO ADVERTISEMENTS.**

Pages 55—57.

**ESTABLISHED 1833.  
HORSES.—LIEUT. JAMES'S BLISTER.****CAUTION.**

The annexed Label is at  
the top of every Pot of  
the ORIGINAL and only  
GENUINE BLISTER.

The Messrs. Barclay & Sons,  
95 Farringdon Street, London,  
and Messrs. Ralms & Co.,  
Edinburgh, are now and have  
been Agents 57 years.



**AGENTS:**—Sutton & Co., 10 Bow Churchyard; W. Edwards & Son,  
157 Queen Victoria Street; Newbery & Son, 37 Newgate Street; Evans,  
Lescher & Evans, Bartholomew Close; Burgoine, Burldges & Co.,  
16 Coleman Street; Lynch & Co., 171A Alder-gate Street; Southall  
Brothers and Barclay, Birmingham; R. Heyenden & Sons, 93 & 95 City  
Road, Finsbury; Sanger & Son, 150 Oxford Street; Milard & Sons,  
40 Charterhouse Square; Corry & Soper, 114d Thames; A. A. Campbell,  
Leadenhall Street, London; Woolley, Sons & Co., 59 Market Street, Man-  
chester; Apothecaries Company, Virginia St., Glasgow; John Thompson,  
53 Hanover Street, Liverpool; Boileau & Co., Bride Street, Dublin;  
McMaster & Co., 121 & 122 Capel Street, Dublin; Clarke & McMullen,  
Victoria Street, Belfast; D. Galbraith, Londonderry; M. C. Delacere,  
Pharmacie Anglaise, Bruxelles.

And by all Chemists, in Pots, 1 1/2, 2 1/2, 5/, 9/, and 16/.

**COLONIAL AGENTS:**—MELBOURNE and WELLINGTON: Felton,  
Grimwade & Co.; SYDNEY, BRISBANE, and LAUNCESTON: Elliott Bros. &  
Co.; DUNEDIN and AUCKLAND: Kempthorne, Prosser & Co.; CALCUTTA:  
Smith, Stanistreet & Co.

**W. H. JAMES, SOLE MANUFACTURER, STANFORD, FARRINGTON, BERKS.**  
Advertised in "Bell's Life" 54 years. Beware of Spurious Imitations.



# TO AFFIX OUTSIDE PERMANENTLY.

MESSRS. ELLIMAN, SONS & CO., SLOUGH, ENGLAND,

ARE NOW ISSUING, FREE TO ANY ADDRESS,

(Foreign and Colonial Dealers to give an Address in England for enclosure)

## ENAMELLED IRON TABLETS,

Size 20 inches by 18 inches, with their registered (in all countries) Trade Mark upon them, to Chemists who will undertake to affix them permanently in a conspicuous position outside their premises.

ALSO

## A HANDSOME SHOW CARD

FOR INSIDE EXHIBITION  
NOW READY.

SIZES—

24 × 17

OR

17 × 12.

PLEASE STATE WHICH

## ELLIMAN'S ROYAL EMBROCATION.

The Antwerp Horse and Cattle Insurance Co., Antwerp, Belgium.

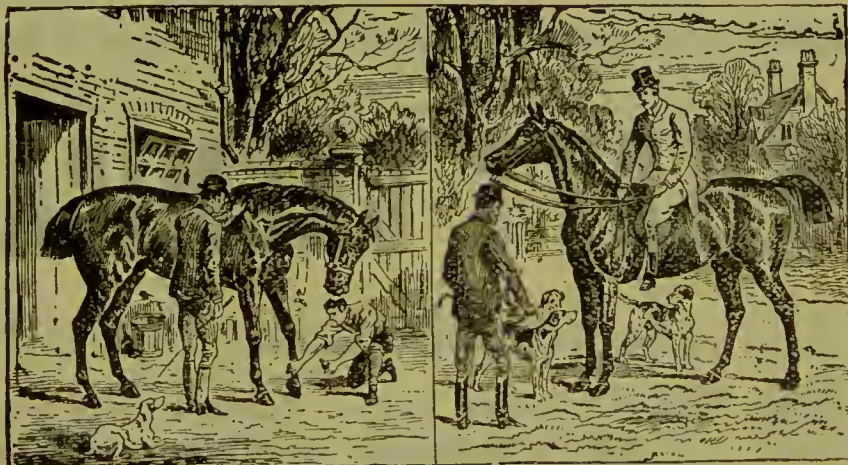
January 27, 1890.

GENTLEMEN,—We have *successfully* used your Embrocation in our own stable, and in many stables insured through our Company.

Your Embrocation is unrivalled.

P. Pr. The Antwerp Horse and Cattle Insurance Co, La Garantie Générale.

VON RUDGISCHE.



## READ.

"Being very attractive, they increase the sale of your valuable preparation."

H. A. DESCHAMPS, Kingston, Jamaica, August 28th, 1888.

WALTER A. LIDINGTON, Esq., Handicapper and Starter,

WEST KENT HARRIERS, writes, March 3, 1890 :—

I am desired by the members of the above Club to inform you that they have used your Embrocation for a considerable period, and that they think it is more beneficial than any other that has been introduced into the Club.

For running and cycling it is invaluable, and we would not be without it under any consideration.

ELLIMAN'S ROYAL EMBROCATION, in Bottles, 2s., 2s. 6d., and 3s. 6d. each.

ELLIMAN'S UNIVERSAL EMBROCATION, in Bottles, 1s. 1½d. and 2s. 9d. each.

## OBSERVE.

The Sale of these Preparations is increasing rapidly in all parts of the world, to a very great extent through persons recommending them to others. No tricky advertisements issued, nor are Press Notices accepted, offered to secure an order for advertising.

Prepared only by ELLIMAN, SONS & CO., Slough, England.



# "The Marvel of the Nineteenth Century."

TO MERCHANTS, SHIPPERS, AND DRUG HOUSES.

**CLARKSON'S EMBROCATION**, which can be used either Internally or Externally (using Herbs and Roots only).  
**OINTMENT, AND HORSE AND CATTLE LINIMENT**, which is being used on the estates, and in Dublin by  
EARL OF ZETLAND'S Coachman, Trainer, and Shepherd. It is most suitable for the Export Trade. Will keep in any climate.

SPECIAL TERMS TO DRUG HOUSES ABROAD.

SOLD BY ALL DRUG HOUSES IN LONDON.

MANUFACTURERS—

A. CLARKSON & CO., SURREY HOUSE, WEST COWES, I. O. WIGHT.  
Established 50 Years.

## WALKER, TROKE & CO.

WHOLESALE AND EXPORT DRUGGISTS,  
82 CITY ROAD, LONDON, E.C.

SOLE MAKERS OF

GABRIEL & TROKE'S  
QUININE TONIC AND  
STIMULATING



GELATINE  
CAPSULED  
HORSE BALLS

(Registered No. 81,291).

Alterative, Condition, Cordial, Cough, Diuretic, Fever, Physic, and Worm Balls.

QUOTATIONS & SAMPLES FREE ON APPLICATION.

# WILEY'S CHEMICAL ESSENCE

FOR

## LAMENESS IN HORSES.

Agents Wanted in every Town. Handbills, with Name and Address, supplied gratis  
**50 YEARS' UNBROKEN SUCCESS.**

SOLE MAKER & PROPRIETOR, J. ROOKLEDGE, CHEMIST, EASINGWOLD, YORKS.

TO BE HAD OF USUAL WHOLESALE HOUSES.

# PETROLEUM JELLY.

Equal to VASELINE and much CHEAPER.

**GOLDEN, YELLOW, RED, AND WHITE.**

ANSWERS ALL REQUIREMENTS OF THE B.P.

[1]

Large 1d., 2d., & 3d. Tins, in 1-gross Boxes, and in usual-size Tins & Casks.

Save 25 per cent., and write for samples and quotations from the Makers,

**HAMILTON & CO., WANDSWORTH, LONDON, S.W.**



# STICKY FLY PAPERS

(WILSON'S PATENT.)

Wholesale Dealers are requested to send on orders AT ONCE, in order to secure a supply when the demand is on.

TERMS FOR THIS SEASON: For lots of not less than 25 gross, 3s. 6d. net, one month from date of invoice;  $2\frac{1}{2}$  per cent. less for cash with order.

The manufacture of these will be carried on under the personal supervision of the proprietor, who is determined that each single paper shall be completely satisfactory to dealer and consumer.

ADDRESS—

**S. WILSON, FLY PAPER MAKER,  
ST. HELEN'S, LANCs.**



## The Flowers that Bloom in the Spring, tra la! Have nothing to do with the Case!

But they have a great deal to do with G. VOGT & Co.'s Perfumes inside the **CASES** that Merchants send abroad. Every Chemist should Stock, and every Merchant should Ship, our **SCENTS** (which are distilled from the **FLOWERS**), especially our New Perfumes:—

# "THE SCENT OF THE LILIES," AND "THE SCENT OF THE HAYFIELDS."

(REGISTERED 87090.)

(REGISTERED 87092.)



All our Perfumes in  
1, 2, 4, 8, and 16 oz.  
Bottles. Usual Retail  
Prices:—2/-, 3/6, 6/6,  
12/-, and 21/- Each.



Send to us also  
for Insect  
Powder (genuine  
Dalmatian).  
Essential Oils,  
guaranteed pure  
Fruit Essences  
from  
Fresh Fruit.  
Pure Drugs.  
Pure Chemicals.  
Finest Saffron.  
Price Lists and  
Samples  
on application.

**G. VOGT & CO.,** 19 Laurence Pountney Lane, LONDON, E.C.  
TELEGRAMS:—"ALSACE LONDON."

## "Cream of Magnolia."

**MATCHLESS FOR THE COMPLEXION.**

A Marvellous and Unique Preparation for Softening, Toning, and Beautifying the Skin.  
**INVALUABLE for removing Spots, Sunburns, Blotches, and all Imperfections.**

**IMPARTS A VELVETY SOFTNESS AND BLOOM.**

Renders it Beautiful to the Eye, and deliciously soft to the Touch. Can be used with the most perfect safety to any child or infant.  
In Bottles, post free, 2s. 6d., 4s., 7s., and 10s. 6d., or sample Bottles, post free, 1s. 3d. direct from the Proprietor,

**JOHN STEEDMAN,**

154 QUEEN'S ROAD, BAYSWATER, LONDON, W.

And of all Chemists throughout the World.

ESTABLISHED 1836.

Ladies once using this Preparation will never be without it.

**HOPGOOD & CO'S**  
**HAIR** NUTRITIVE & SEDATIVE  
**CREAM**

The only preparation for the Hair recommended by leading Physicians for the removal of Scurf, allaying irritation, preventing greyness and baldness, and producing a

**LUXURIANT HEAD OF HAIR.**

In Bottles to retail at 1s. 6d., 2s., 2s. 6d., 3s. 6d., 5s.  
Revised Wholesale Prices, 12s. 6d., 16s. 6d., 20s., 30s., and 42s. per dozen  
Supplied by all Wholesale Sundry Houses,

OR FROM THE DEPOT—

**OSBORNE, GARRETT & CO.,** 51 Prith St., Soho, London, W.

## H. P. TRUEFITT'S SPECIALITIES FOR THE HAIR.

Floral Extract, 3/6, 5/-,

10/6, 21/-

Egg Julep, 2/-, 4/-

CONCENTRATED

Egg Julep, 2/6,

5/-, 10/6.

Golden Fluid,

10/6, 21/-

EUXURON,

1/6.

&c.

Stimulating Lotion, 5/-

10/6.

Astringent and Tonic

Lotion, 5/-, 10/6.

Quinine and Arnica

Hair Wash, 3/6,

5/-, 10/6, 21/-

Arnica Wash,

3/6, 5/-,

10/6.

&c.

**EUCHRISMA.**  
Combines in one clear Fluid every valuable  
Component both of a Hair Grease and Wash,  
3/6, 5/-, 10/6, 21/-.

**EAU RACINE.**  
For renewing the original colour of Grey Hair;  
superior to all other Restorers, being perfectly  
simple in its Components. Price 6/-.

An elegant Preparation for  
the Hair and Beard.  
Price 2/6, 3/6, 5/-, 10/6, 21/-.

## BRILLANTINE.

**H. P. TRUEFITT'S TONIC TOOTH BRUSH**

(BY ROYAL LETTERS PATENT.)

**PRICE ONE SHILLING.**

20 & 21 Burlington Arcade; 13 & 14 Old Bond St., London.



# EWEN'S LARD

Is universally acknowledged the **BEST LARD**  
that can be procured.

Every Wholesale Druggist should stock it. Every  
Chemist should use it.

*EWEN'S BENZOATED LARD does not go  
rancid—and should always be used.*

Trade Mark.



Facsimile of  
Label.

## EWEN'S GENUINE TOILET SOAPS

IN EVERY VARIETY.

Sandal Wood, Musk, Marshmallow, Cowslip, Oatmeal, Bran,  
Fragrant Glycerine, &c., &c.

Camphor Cakes, Cosmetics, Violet Powder,  
Tooth Powder, Pomades, Cold Cream,  
&c., &c.

GENUINE

MARK.



TRADE

PURE.

All B. P. Ointments supplied where Lard is  
Ordered as the Base.

*Pharmaceutical, Perfumery, and Culinary purposes.*

Should be used in all cases for

and Deer Suet, Trotter and Neatsfoot Oil,

Plain and Benzoated Lard, Beef Marrow, Beef Mutton, Veal,

# EWEN'S

Trade  
Mark.



Facsimile of Label.

## NOTICE TO SHIPPERS

Attention is particularly called to  
this page advertisement, when executing  
indents.

# EWEN'S

CLARIFIED FAT WORKS AND TOILET SOAP FACTORY,

5 HATFIELD ST., LONDON, S.E.



# THE UNIVERSAL SAFETY FEEDING-BOTTLE HOLDER

This latest novelty in connection with Feeding Bottles consists of a strong Safety Pin, to which is attached two short pieces of Ribbon, which support an Indiarubber Ring adjustable to the neck of any size Feeding Bottle; the Pin may be attached to the Infant's Dress, and the Feeding Bottle is thus kept in position.

THIS SIMPLE CONTRIVANCE SUPPLIES A LONG-FELT WANT.

3 DOZEN ON A CARD, TO SELL AT 2d. EACH, 4/- PER CARD NET.

May be had of all Wholesale or Sundry Houses, or from

**H. C. QUELCH, 19 LUDGATE HILL, E.C.**  
WRITE FOR SAMPLE CARD.

*FUMIGATING RIBBON, in imitation Postal Pillar Boxes, at 4/- per Dozen.*

## FULLER'S EARTH & VIOLET POWDER.

In Handsome Metal Boxes, specially suitable for Export, 4/- and 3/6 per Dozen.

## THE CITRATE OF THE SEASON.

Granular Effervescent Raspberry Citrate, containing the well-known properties of Citrate of Magnesia, with the flavour of the Natural Fruit, in  $\frac{1}{2}$ -lb. Bottles, 7/6 per Dozen. This is a most suitable article for Export; try a sample dozen.

SOLE AGENT—

**H. C. QUELCH, 19 LUDGATE HILL, E.C.**

## M. BAILEY & CO. MANUFACTURERS OF DRUGGISTS' SUNDRIES.

M. B. & Co. beg to call the attention of the Trade to the following articles manufactured by them:—

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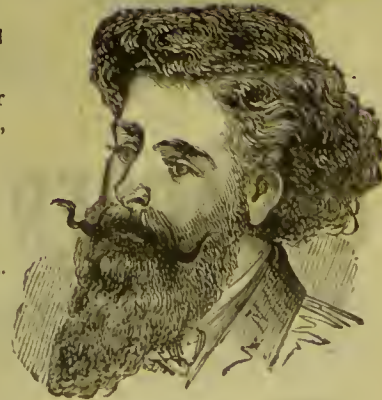
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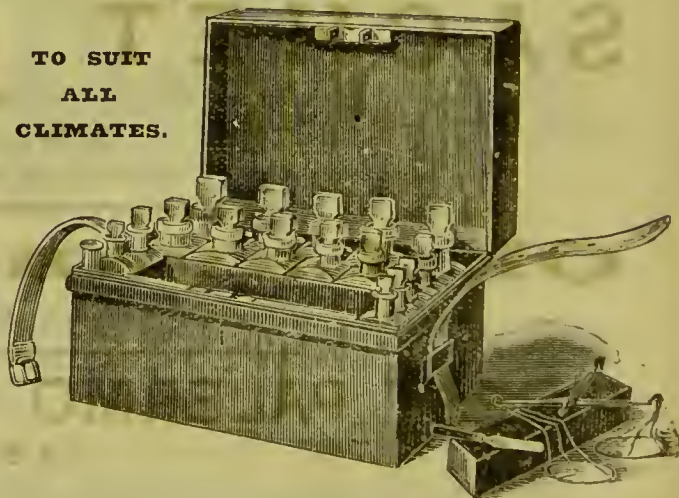
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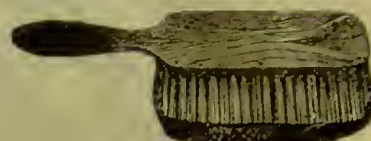


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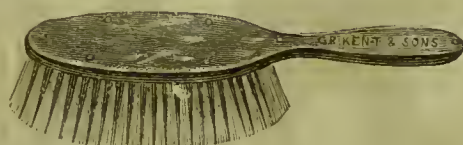
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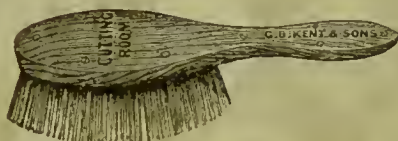
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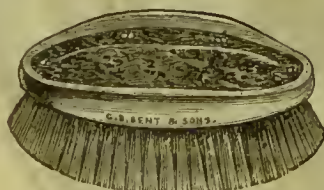
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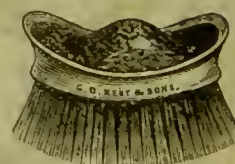


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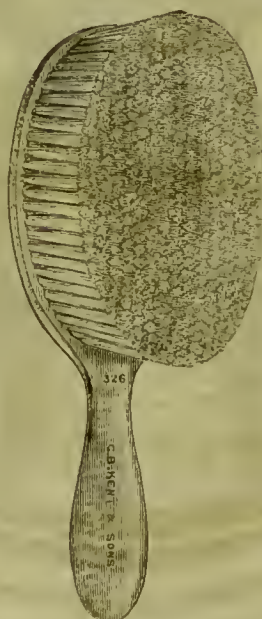
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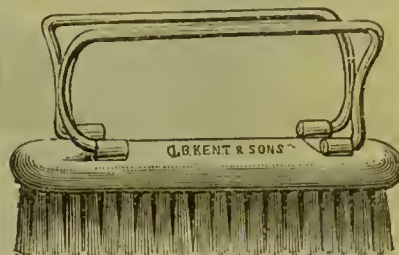


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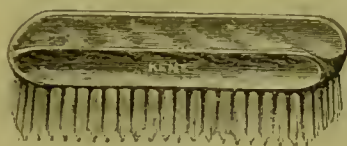
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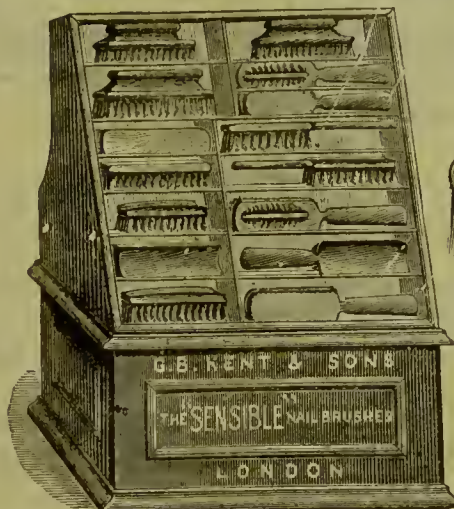
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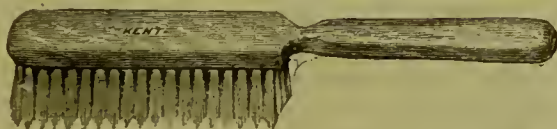
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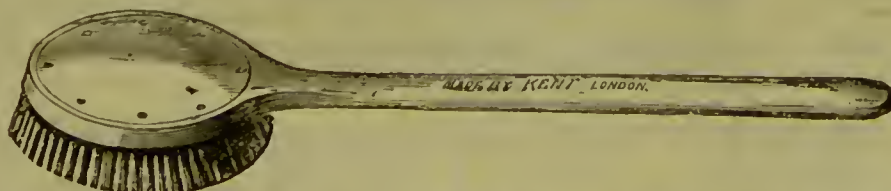
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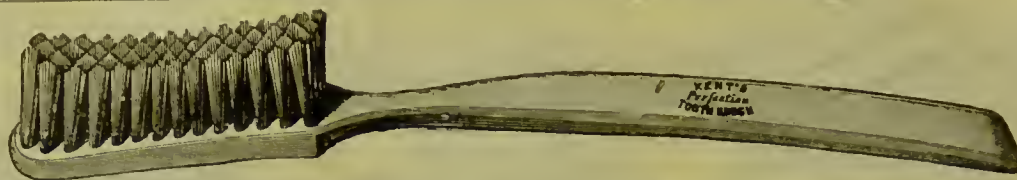
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FOR MEASUREMENT.

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Circumference at axilla.

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Length from axilla to great  
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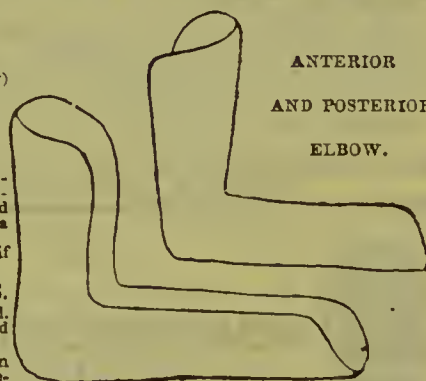
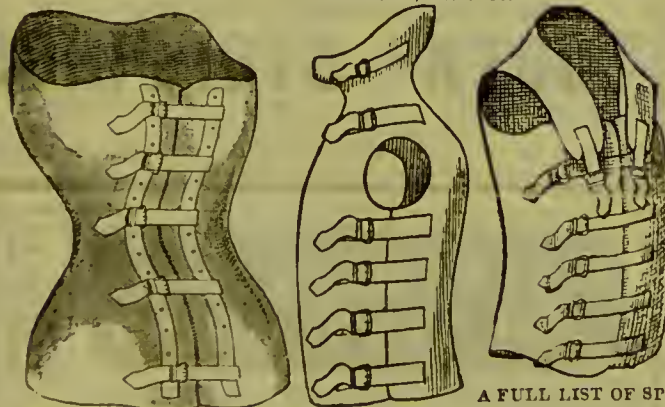
In severe angular cases circum-  
ference over apex of curve, posi-  
tion of ditto, and contour should  
be given; in lateral cases a  
description of the case.

In all cases it must be stated if  
for male or female.

#### CERVICAL JACKETS.

Same measurements required,  
and circumference at neck, and  
length from neck to axilla.

Any part of the Jacket can  
in the process of manufac-  
ture be left soft.



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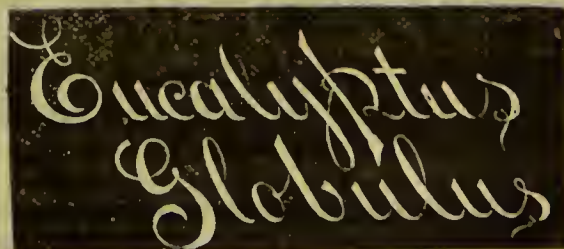
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Favourably noticed in "British Medical Journal," December 18, 1879; in the "Lancet," January 8, 1880; and in "British Medical Journal," September 30, 1882.



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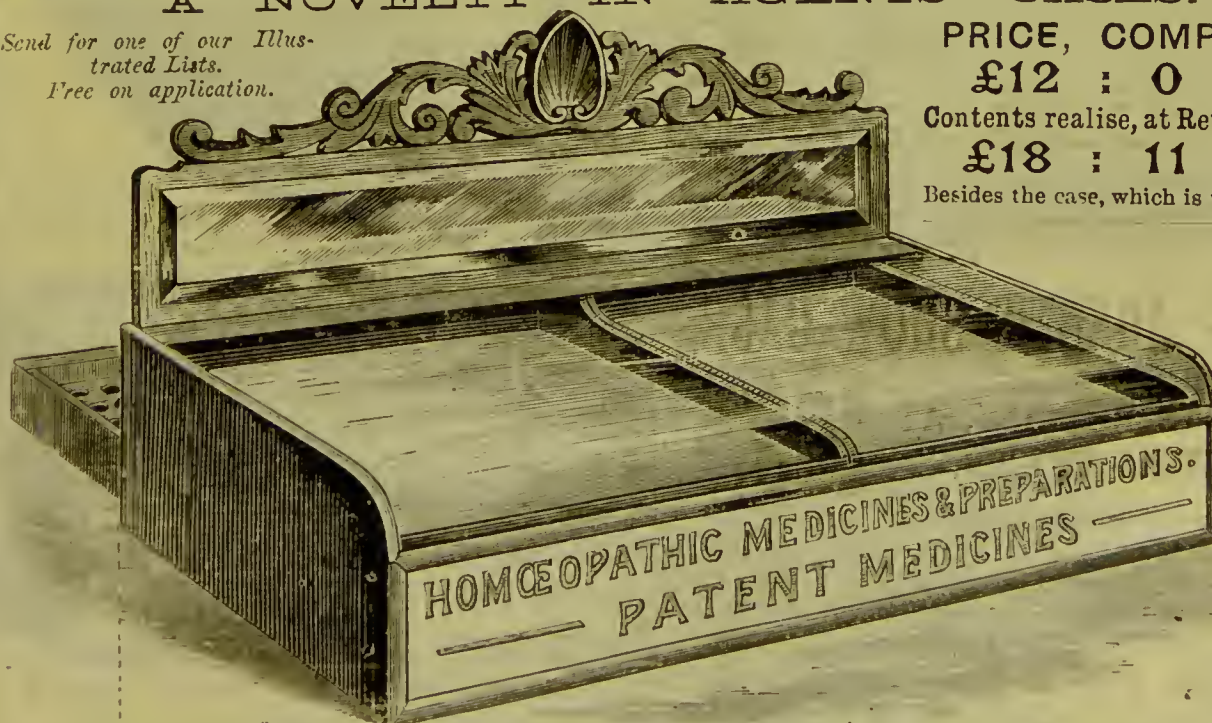
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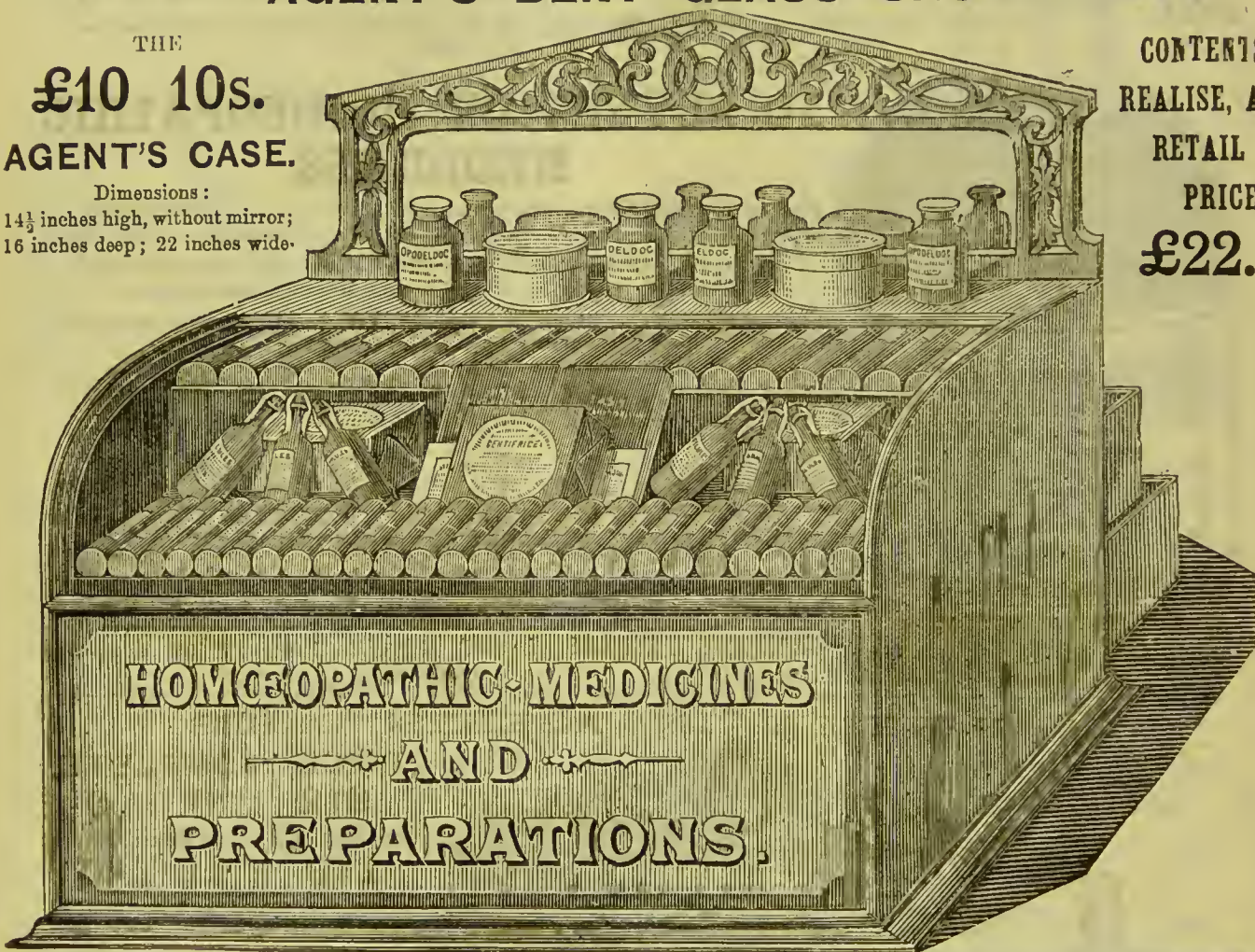
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